

JAIPUR

PROFILE OF A CHANGING CITY

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TO
SHRI BHAGWAT SINGH MEHTA
A Distinguished Administrator
A Great Humanitarian

ALSO BY RAMESH K. ARORA

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Preface

In the wake of the celebrations of the 250th anniversary of the founding of Jaipur, a renewed interest in the poly-faceted life of the city is very much evident. The present book may be considered to be a modest attempt in reflecting such an interest.

Jaipur, until the beginning of the twentieth century, had remained more or less a self-contained city. Since then, however, it has been facing a series of diverse challenges emanating from its dynamic environment. Over the years, its economic and politico-administrative significance has substantially increased. This has put additional responsibilities on the city development authorities engaged in the process of effectively responding to the ecological demands. The multi-faceted changes witnessed in the city life during the past few decades have made it a cosmopolitan urban centre which intrigues foreigners and natives alike.

The present study, which is 'indicative' and 'exploratory' in character, briefly examines facts and issues pertaining to Jaipur's morphology, demography, housing, slums, water supply, electricity, transportation, educational system, health services, environmental protection, beautification, recreation, cultural life, tourism, town planning and the administrative system. A few other important areas such as the economic system and the social welfare administration have not been dealt with comprehensively in the book. They are planned to be covered in a follow-up study that might be taken up in future.

The initial stimulus to undertake this study came from Shri B. Mehta who, as the Chairman of the Rajasthan Regional Branch of the Indian Institute of Public Administration, motivated me to undertake a project on the urbanization of Jaipur. A detailed design for the project was prepared with the help of Shri B. Hooja, but which, on account of limitations of time and resources, could not be carried out. In the conduct of present study, constant guidance was received from Shri B. Hooja, Shri K. C. Pande and Shri P. C. Mathur. Among those who were extremely helpful in carrying out this study include Shri D.R. Mehta, Shri Jagdish Sharma and Shri N.K. Sethi. Notably, this study bears an imprint of several stimulating ideas of Shri Jagdish Sharma.

During the various stages of the project, officials of various governmental and non-governmental organizations provided us with valuable help. Particular mention may be made of Shri R.K. Mishra, M.P., Shri Devi Shankar Tiwari, Dr. T. K. N. Unnithan, Shri B. Kambo, Shri Sardar Mal Sanghi, Shri Bhim Singh, Shri Nihal Chand Jain, Dr. Swaran Hooja, Mrs. Saroj Gupta, Shri S. S. Mathur, Shri Jamil Alvi, Dr. Deen Bandhu Acharya, Shri A. S. Chandana, Miss Tripti Pandey, Shri Tarachand, Shri J. P. Sapra, Dr. Rameshwar Sharma, Prof. A. M. Ghose, Shri Vinod K. Jain, Dr. V. K. Arora, Shri R. S. Sharma, Shri M. L. Jain, Shri K. C. Gupta, Shri Radhey Sharan Mathur, Shri S. M. Sharma, Mrs. Sudha Saxena, Miss Siddiqa Alvi, Mrs. Kumud Jain, Miss Meena Sogani and Miss Sunanda Gupta. Data for this study were collected with the help of Mr. Prahlad Rai Gupta, Mr. Surendra Mohan, Mrs. Chetan Jain, Mrs. Asha Hingar and Miss Kusum Lata Jain.

Shri Hari Mohan Mathur, Director of the HCM State Institute of Public Administration, showed keen interest in the project and provided necessary facilities for conducting it at the State Institute of Public Administration. I am grateful to him for his encouragement. The Rajasthan Branch of the Indian Institute of Public Administration deserves my special thanks for assigning me this project and for funding it.

Shri Rakesh Hooja, Honorary Deputy Director of the project, despite his heavy official responsibilities, has made useful contribution in the preparation of the report. Miss Shashi Mathur, my colleague in the Institute, shared with me the task of drafting this study. Miss Mathur also supervised the indexing of the book.

Finally, a word of thanks to Shri Mahaveer Goyal of Popular Printers who has printed the book so well. I am also extremely grateful to all those who have contributed to the preparation of this study, but whose names might have been left out by an oversight. Of course, the book has its own share of shortcomings, and for them, I alone should be held accountable.

The HCM State Institute
of Public Administration
Jaipur
March, 1977

RAMESH K. ARORA
Project Director

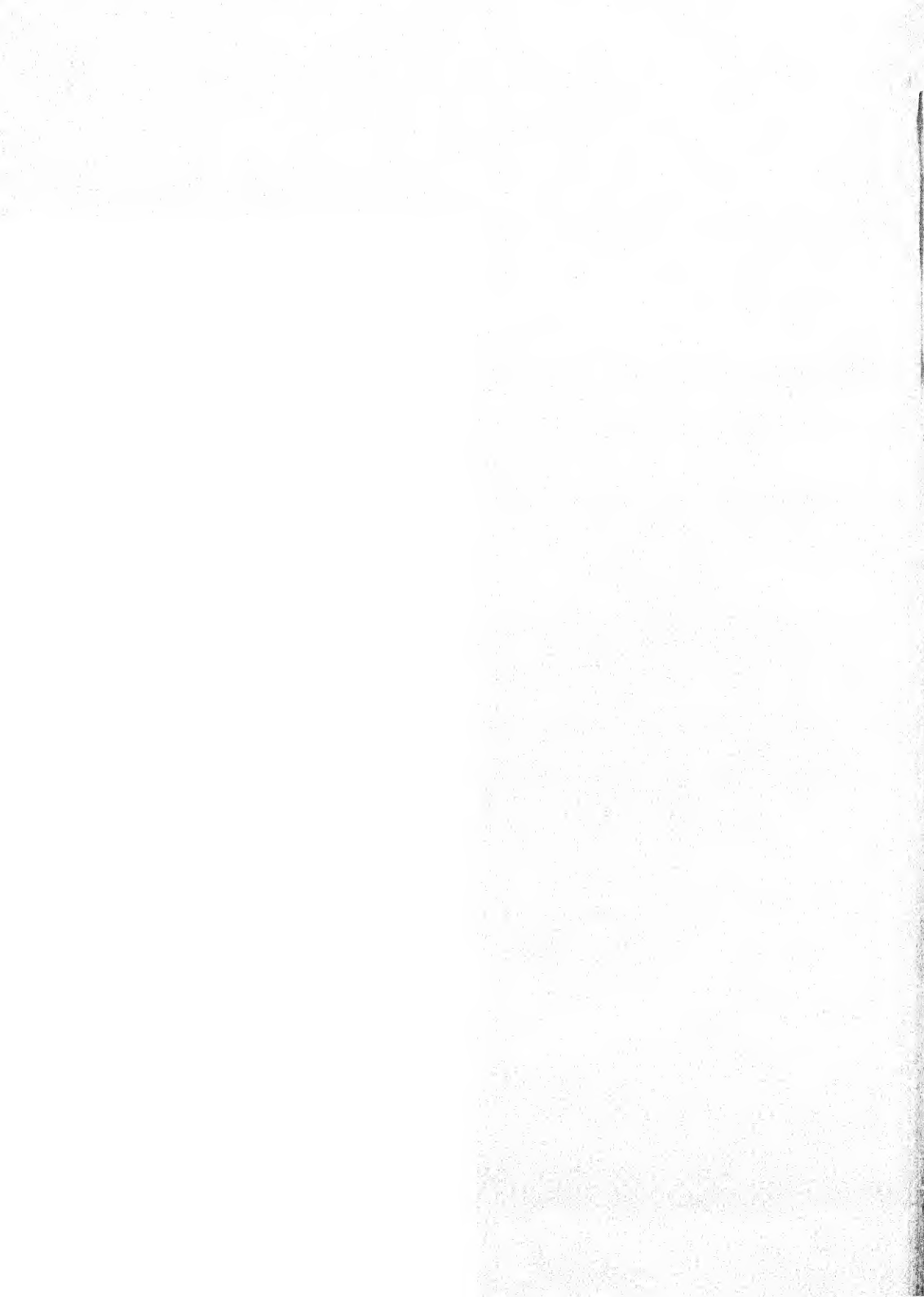
Table Index

1.1	Wardwise distribution of population in Jaipur City in 1961 and 1971	4
2.1	Population growth in Jaipur : 1901-1971	9
2.2	Growth of population in the new and old parts of Jaipur	10
2.3	Density of population in Jaipur city	11
2.4	Population projections for Jaipur : 1981 and 1991	11
2.5	Estimated wardwise population of Jaipur : 1981 and 1991	12
3.1	Number of houses and the number of persons per house in different wards of Jaipur city, 1921-1961	13
3.2	Wardwise distribution of households by richness in floor space occupied in Jaipur city in 1965	14
3.3	The occupancy status of households in Jaipur city in 1961 and 1965	15
3.4	Wardwise distribution of the households according to the availability of bathroom facilities	16
3.5	Wardwise distribution of households according to the availability of the kitchen facility in Jaipur city in 1965	17
3.6	Wardwise distribution of the households by the availability of latrine facility in Jaipur city in 1965	18
3.8	Registration under the General Registration Scheme : 1971 and 1973	19
3.9	Allotment of houses in Jaipur under the Rajasthan Housing Board scheme	20
3.10	Details relating to co-operative housing societies financed by the Rajasthan State Co-operative Housing Financial Society Ltd.	22
4.1	Number of slums in Jaipur city, alongwith distribution of population, occupied houses, households and persons per house inside and outside slums	27
4.2	Number of basties, population covered and the financial outlay under the EIP	29
5.1	Tubewells in Jaipur	38
5.2	Water connections and public taps in Jaipur : 1961-74	39
6.1	Particulars of consumers served in Jaipur city : 1973-76	43
6.2	Electricity supplied and revenue obtained by RSEB in Jaipur city in 1973-74 (According to categories of consumers)	44
6.3	Particulars of units sold during 1975-76 in Jaipur city circle	45

6.4	Connected load in Jaipur city during 1974-75 and 1975-76	46
7.1	Right of way in different types of roads proposed in the Master Plan	52
7.2	Proposed bus terminus in the Circulation Plan	53
7.3	Number of vehicles passing Chandpole Market and going in one direction during rush hours	55
8.1	The category-wise distribution of educational institutions and number of teachers and students in Jaipur city (1964)	57
8.2	Number of schools, number of teachers and students in Jaipur city : 1973-74	58
8.3	Enrolment in colleges in Jaipur during 1974-75	59
8.4	Non-formal education centres in Jaipur city	60
9.1	Number of Government hospitals, their bed capacity and the number of patients treated in 1975	65
9.2	Patients treated in Government dispensaries in Jaipur during 1975	66
9.3	Maternity and child welfare centres in Jaipur	67
9.4	Small pox and cholera vaccination in Jaipur : 1971-75	68
9.5	Number of patients in the Government ayurvedic hospitals and dispensaries in Jaipur : 1975-76	69
10.1	Number of vehicles registered in Jaipur : 1970 to 1975	75
10.2	Average consumption of fossil oil from July 1975 to March 1976	76
12.1	List of recreational centres occupying land in Ram Niwas Garden	93
12.2	Locality-wise distribution of parks and playgrounds and their area in 1965	94
12.3	Number of developed parks in the city in 1975	94
12.4	Gardens and parks in Jaipur according to management	95
13.1	Number of tourists who visited India, Rajasthan and Jaipur	102
14.1	Comments on the Draft Master Plan from various groups	110
14.2	Occupational structure of Jaipur : 1991	111
14.3	Land use in Jaipur : 1971 and 1991	112
14.4	Approximate area of proposed planning districts : 1991	113
14.4	Government office distribution : 1991	114
14.6	Distribution of proposed commercial area in Jaipur : 1991	115
14.7	Commercial district centres in Jaipur : 1991	116
14.8	Industrial areas in Jaipur : 1991	117

Contents

Preface	vii
Table Index	ix
1. Morphology	1
2. The Demographic Structure	9
3. Housing	13
4. Slum Clearance	25
5. Water Supply	37
6. Electricity Supply	42
7. Transportation	48
8. The Education Services	56
9. Health Services	64
10. Environmental Protection	74
11. The City Beautiful	83
12. Recreation and Cultural Life	87
13. Tourism Development	99
14. The Approach of the Master Plan	109
15. The Administrative System	120
Index	130



Morphology

Till the twenties of the eighteenth century, Amber had served as the capital of the princely state of Jaipur.¹ However, on account of its location in an inaccessible tract of the Aravali hills, it was unsuitable for meeting the ever-increasing demands of the growing population. The need for greater protection from enemy attack also led the then ruler of Jaipur, Sawai Jai Singh, to move his capital to a nearby flat site towards south of Amber. Notably, from the point of view of defence, the location of Jaipur was most suitable. A site at the south of Amber ensured greater distance from Delhi and also prevented the expansion of the city in that direction. It was clear that the outskirting hill ranges shaped as a horseshoe would allow the new city to expand only in the south. Besides, Jaipur had the potentialities of developing into a city with adequate drinking water and good drainage system. Its rugged stony hills also ensured a constant supply of building material which might be required in the times to come.

Sawai Jai Singh (1699-1744), a renowned scholar-statesman of his time, was determined to build a new capital according to a carefully prepared plan. The king was a great patron of mathematics and astronomy, and during his reign treatises of great merit were written by several scholars belonging to his court. It was his love for science that led him to construct astronomical observatories at Delhi, Jaipur, Ujjain, Mathura and Banaras. He was probably the first Indian ruler to study the structural layout of European cities and apply the principles of *Shilpa Shastra* and town planning in designing a new city. Following these principles, the city of Jaipur was founded in 1727 and its construction started a year later. The structuring of Jaipur, bears a testimony to his acumen in town planning. Jai Singh's love for symmetry and uniformity is well reflected in the meticulous planning of the

2/ Morphology

city. It is pertinent to mention that Jaipur was designed with the assistance of a perceptive engineer, Vidhyadhar Bhattacharya who, according to Col. James Tod, was one of the most eminent coadjutors of the Prince Jai Singh in all his pursuits.

TOWN PLANNING

The city of Jaipur was planned according to the *prastara* type of layout, which gives prominence to the cardinal directions. Thus "the central axis of the town was laid from east to west between the gates of the sun (Surajpole) and the moon (Chandpole) and this was crossed by three roads at right angles dividing the town into nine blocks which were further subdivided by lanes and alleys. The palace building covered two blocks, the town six and the remaining ninth block was not usable on account of the steep hills. The town has around it a masonry wall, 25 feet high and 9 feet thick, with eight gates. The gates are Chandpole Gate, Ghat Gate, Ajmeri Gate, Sanganeri Gate, Surajpole Gate, Gangapole Gate, Zorawar Singh Gate and New Gate. The palace buildings are surrounded by a similar wall, the two walls acting as successive defence lines. On the main streets, strict control was exercised on the street facade, along which were located shops and arcades—one storey high, but beyond the frontage the buildings could be of any height or any shape, some built with flat roofs and others with traditional *chatries*.

The city's division into nine wards was in conformity with the Hindu caste system which necessitated the segregation of people belonging to different communities and ranks. The original pattern of wards was a centripetal arrangement with the royal palace situated in the centre of the city. The peripheral areas were occupied by the serving class. Even the lanes were named after the occupations of the inhabitants, such as *Maniharon ka Rasta* (lane of bangle sellers) *Thatheron ka Rasta* (tinkers' lane) *Ghee-walon ka Rasta* (ghee-sellers' lane) and many others. Following the directions of Hindu *Shilpa Shastra*, width of the main streets and other lanes were fixed. Thus the main streets of the city were 111' wide, secondary streets 55' wide, and the smaller ones 27' in width.

The well planned and harmonious construction of the city has made it a distinct model of town planning. It is not surprising therefore that Jaipur is incessantly admired for its careful designing by the foreigners who visit the city. A French scholar, who toured Jaipur in 1832, observed: "Delhi has only one similar road, named Chandni Chowk but at Jaipur all the roads resemble it. In general the architecture of Jaipur is of a very elegant style."³ It is interesting to note that in 1875 when Prince Albert visited Jaipur, the then ruler of the State, Sawai Ramsingh, had the main bazaars mantled pink and since then the city has been internationally known as the Pink City of India.

LOCATION

Jaipur is situated amidst the Aravali hill ranges at an altitude of about 430 metres above mean sea level and lies on latitude 26°55' north and longitude 75°50'. The greenery around the city belies the fact that this is the capital city of Rajasthan—a desert State. Only the sandunes at the outskirts of the city bear a faint resemblance to a desert region. The hill ranges girdle the city from three sides, thus leaving only the southern region for further expansion.

Jaipur is directly linked with several large towns inside and outside Rajasthan by road, rail and air. It is an important railway junction on the Delhi-Ahmedabad railway line. Besides, National Highways Eight and Eleven run through the city of Jaipur, while Highway One links Jaipur with Kota—the industrial city of Rajasthan.

The climate of the city is dry and the temperature fluctuates between 25°C to 41°C in summer and between 6.5°C to 25°C in winter. The average annual rainfall is 62 c m. while the average humidity in July is 80%.

STRUCTURE OF THE CITY

Originally the city of Jaipur was confined within the enclosing wall. But with the passage of time and population growth congestion within the walled city increased and consequently therefore the municipal area of the city had to be expanded. Further, with the coming of railways in Jaipur at the beginning of this century, the expansion of the city outside the walled premises became imperative. The area outside the walled city was utilized for residential as well as other purposes. Presently, the entire municipal area of Jaipur city covers about 27 sq. miles while the area of the walled city remains three sq. miles only.

For the 1961 Census, Jaipur was physically divided into ten wards, out of which the first eight were within the walled city and the remaining two covered the area outside the walled city. These outlying wards, when compared with the rest, are larger in size and population. In the 1971 census the municipal election wards were reclassified as units of census wards. Consequently the number of wards increased from ten to thirty-eight. In the table 1.1, showing ward-wise population in Jaipur city during 1961 and 1971, the population of the thirty-eight wards as per the 1971 census has been shown adjusted according to the division of the city into ten wards under the 1961 census. This has been done to facilitate an analysis of population growth in various wards during the decade 1961-71.

TABLE 1.1

WARDWISE DISTRIBUTION OF POPULATION IN JAIPUR CITY IN 1961 AND 1971.

S. No.	Name of ward	1961		1971		Percentage deviation from 1961 to 1971
		Population	Percentage of the total population	Population	Percentage of the total population	
1.	Purani Basti	53,077	13.2	72,991	12.0	-1.2
2.	Topkhana Desh	47,293	11.7	59,302	9.7	-2.0
3.	Visheswarjee	22,812	5.7	27,589	4.2	-1.5
4.	Modikhana	20,346	5.0	23,375	3.8	-1.2
5.	Ramchanderji	38,436	9.5	49,424	8.1	-1.4
6.	Gangapole	20,829	5.2	33,294	5.5	+0.3
7.	Ghat Gate	43,952	10.9	52,802	8.7	-2.2
8.	Topkhana Hazuri	27,348	6.8	36,755	6.0	-0.8
9.	Hawali Shahar Janubi	48,146	11.9	105,144	17.2	+5.3
10.	Hawali Shahar Garbi	81,205	20.1	151,696	24.8	+4.7
Total		403,444	100.0	610,572	100.0	

Source : Compiled on the basis of Census data, 1961 and 1971.

Thus the population of the eight walled city wards increased from 2,74,093 in 1961 to 3,53,732 in 1971, recording 29.2 per cent increase over the decade under review. On the other hand, the population in the two outlying wards, Hawali Shahar Janubi and Hawali Shahar Garbi which was 1,29,351 in 1961 shot up to 2,56,840 in 1971, thus registering a notable 99.2 per cent increase. The new localities of Jaipur, developed outside the walled city inhabited 32 per cent of city's population in 1961, while in 1971, the figure had gone up to 42 per cent. This trend of population growth in the 'old' and the 'new' parts of the city underscores the fact that the walled city, in its horizontal growth at least, has reached its ultimate point. Paucity of land which could provide space for developing new habitable areas has compelled the people of Jaipur to cross the precincts of the walled city.

THE CITY ZONES

Over the years, the city of Jaipur has developed its large networks of essential areas, community service points, industrial and business organizations and administrative institutions. These and other organizations are scattered throughout the city. Yet a pattern of localization is manifest in the growth of different functional areas. On the basis of functional specificity an attempt has been made to divide the city into seven zones. These are : (1) Business and Light Manufacturing Zone, (2) Residential Zone, (3) Community Service Zone, (4) Administrative Zone, (5) Military Zone, (6) Industrial Zone, and (7) Agricultural Zone.

1. *Business and Light Manufacturing Zone* : This zone covers the area between Ramganj Chowpar and Ghat Gate in the east, Station Road from Chandpole Gate to Khasa Kothi in the west, M. I. Road from Ghat Gate to Khasa Kothi in the south and Chandpole Bazar, Tripolia Bazar and Ramganj Bazar in the north. M. I. Road, Bapu Bazar, Nehru Bazar and Johari Bazar are the main shopping centres in this area.

These bazaars are arrayed with the famous handicrafts of Jaipur which include Sanganeri prints, enamelled brass-work, marble statues, precious jewellery, pottery, ivory and sandalwood work, and embroidered footwear. This vast variety of handicrafts does not merely build a shopper's paradise but also contributes considerably to the economy of the region. Jaipur's handicrafts find a big market in foreign countries and the exporting trade in the city is steadily rising.

Bapu Bazar and Nehru Bazar running parallel to M. I. Road were planned to rehabilitate the refugees from Pakistan. These markets are very popular with the common man as all the essential commodities of day-to-day use can be bought here at reasonable prices. A new market known as Indira Market is being developed as an extension of the Bapu Bazar-Nehru Bazar complex. It will have 200 shops, most of which will be allotted to the displaced *thari* holders.

A comparatively new phenomenon taking place in this zone is the "vertical" housing of commercial enterprises. The multi-storeyed buildings in the main markets were formerly occupied for residential purposes by businessmen who are now moving to the new residential localities outside the walled city. Thus the space vacated by them is being occupied by the newly developing commercial establishments.

2. *Residential Zone*: On the basis of population density, this zone can be classified into three areas: (a) high density areas of the walled city, (b) medium density areas of Adarsh Nagar, Tilak Nagar, Jawahar Nagar, Bapu Nagar, Gandhi Nagar and the like, generally inhabited by the middle income group, and (c) low density areas of Civil Lines, C-Scheme and Banipark, occupied by the high income group. Slums or *katchi basties* with varying population densities are scattered in several parts of the city. Most of the people living in these *katchi basties* belong to the working class.

3. *Community Service Zone* : This zone comprises organizations which are engaged in providing educational, recreational, medical and other welfare services. Jawaharlal Nehru Marg in the east, Bhagwan Das Road in the west and Mirza Ismail Road from Sanganeri Gate to Panch Batti in the north form the boundaries of this area. Important educational institutions, Ram

Niwās Garden, the city zoo, the museum, Ravindra Manch, three popular clubs, Rambagh Palace, S.M.S. Hospital and the newly built Santokba Hospital are located within this area. Jawaharlal Nehru Marg is flanked with a number of educational institutions such as S.M.S. Medical College, University of Rajasthan, Kanoria Mahila Mahavidyalaya, Poddar Higher Secondary School, Rajasthan College, Commerce College and Malviya Regional Engineering College and the State training institution—the HCM State Institute of Public Administration. The new building of Zanana Hospital is also being constructed at this road.

4. Administrative Zone : This zone includes Government offices and other centres of administration, located in three different areas, one inside the walled city and two outside it.

Jaleb Chowk is the oldest administrative centre in the city. It is occupied by the offices of Jaipur Municipal Council, Sales Tax Department, Labour Department, Employment Exchange, I.G.P's office and a few other departments. The Rajasthan Legislative Assembly is also located in this area. The second area is enclosed by Bhagwan Das Road in the east, Tilak Marg in the west, Prithvi Raj Road in the north and Bhawani Singh Road in the south. There is in this region a chain of important government offices including Government Secretariat, the Accountant General's office, Directorate of Agriculture, Directorate of Medical & Health Services and Rajasthan Canal Board. The third administrative area comprises the offices of the Collector and District Magistrate and other judicial and revenue offices which are situated in Bani Park. Numerous other Government offices are scattered throughout the city.

5. Military Zone : This is a compact zone in the north-western line consisting of a military hospital, shooting ranges, military barracks and a large parade ground.

6. Industrial Zone : Large scale industries and big workshops comprise this zone. The area between Khatipura Road and Amani Shah Ka Nullah includes National Engineering Industry, Man Industrial Corporation, Loco Workshop, Jaipur Metals and Electricals, Jaipur Spinning and Weaving Mills and some other industrial units. The other area at the south-west border of the city, popularly known as Industrial Estate, the Vishwakarma and Sudershanpura industrial area of Jaipur south, and the newly developing Malviya Industrial Area in the south-east have relatively smaller industries such as manufacturing metal wires, steel furniture and other metal products.

7. Agricultural Zone : The areas under this zone lie on the circumference of the city, comprising agricultural farms and small villages. Many commuters from this area come to the city everyday to exchange their commodities.

The supplies of fresh vegetable from this area are indispensable to the city dwellers. In some cases the villagers—mostly milk suppliers—come from a distance of about 25 miles on their bicycles. Many of the more prosperous residents of Jaipur engaged in a variety of professions also have farms and farm-houses within a distance of about five miles from the city.

EXPANSION OF THE CITY

The city has been gradually expanding its municipal frontiers to meet the demands of the increasing population. It is obvious that the walled city can no more provide additional housing facilities to a very large number of people as its area is restricted by the enclosing wall. Resultantly many new colonies have come up in the outlying areas.

In the nineteen thirties, five “development” colonies—Adarsh Nagar, Ashok Nagar, Bani Park, New Colony and Civil Lines were set up. The Adarsh Nagar colony was constructed particularly to house the post-partition refugees from Pakistan. Another colony, Civil Lines, was constructed in order to provide residential facilities to senior Government officials.

After the 1948 Congress session at Jaipur, the foundations of Babu Nagar and Gandhi Nagar were laid in the space used for the session. The S.M.S. Highway was extended beyond Gandhi Circle in 1958 and today elegant buildings stand on both sides of this road. Most of these come under the community service zone of the city. Tilak Nagar along with the new Rajasthan University campus emerged during the nineteen fifties. The early sixties witnessed the rise of Jhotwara as an industrial area.

With the establishment of the Rajasthan Housing Board in 1970, two new housing colonies have come up at Jawahar Nagar in the east and Nahri ka Naka in the west, while another colony is planned to be developed in Van Vihar. Moreover, new housing colonies for low income group are being set up near Ajmer Road, Station Road, Tonk Gate and Galta Road, —some of these with the financial assistance of the Rajasthan State Co-operative Housing Finance Society Ltd.

These new colonies because of their spaciousness, have, a special attraction for the middle income and higher income groups of population. As a result the process of growth is faster in the newer colonies than in the walled city. In fact an increasing number of people are shifting to these localities either to their own houses or to some rented accommodation. The changing social structure, and particularly the gradual disintegration of the joint family system, also appears to be a catalyst for the demand of new houses.

NOTES

1. For a survey of Jaipur history, see, among others, M.L. Sharma, *History of the Jaipur State* (Jaipur : The Rajasthan Institute of Historical Research, 1969) ; M.L. Sharma, "History of Jaipur State," in Ramesh K. Arora, ed., *Jaipur : A World City* (Jaipur : Jaipur World City Society, 1975), pp. 17-21; James Tod, *Annals and Antiquities of Rajasthan* (Delhi : Motilal Banarsi Das, 1971).
2. C. S. Chandrashekhar, "India" in *Encyclopedia of Urban Planning*, ed. by Arnold Whittick (New York : Mc Grawhill, 1974), p. 525.
3. Quoted by M. L. Sharma, "History of Jaipur State" in Arora, ed., *Jaipur : A World City*, p. 21.
4. This classification has been attempted in T.K.N. Unnithan and Yogendra Singh, "Jaipur City : A Study of Selected Sociological, Economic and Ecological Aspects" (Jaipur : University of Rajasthan, 1969).

The Demographic Structure

The city of Jaipur, experiencing the phenomenon of growing urbanization, has been incessantly stretching its municipal limits to house its multiplying population. It is interesting to note that in 1881, when the first official census was taken in India, the city of Jaipur recorded a population of only 1.42 lacs. At the beginning of 1976, the city was inhabited by more than 7.8 lacs people. ¹ Table 2.1 depicts the growth of population in Jaipur during the first seven decades of the twentieth century.

TABLE 2.1
POPULATION GROWTH IN JAIPUR : 1901-1971

Year	Population	Decade variation	Percentage decade variation
1901	160,167		
1911	137,098	(—) 23,069	(—) 14.40
1921	120,207	(—) 16,891	(—) 12.32
1931	144,179	(+) 23,972	(+) 19.94
1941	175,810	(+) 31,631	(+) 21.94
1951	291,130	(+) 115,320	(+) 65.59
1961	403,444	(+) 112,314	(+) 38.58
1971	610,572	(+) 207,128	(+) 51.35

Source : Based on Census data.

The data reveal that the decade from 1901 to 1911 recorded a decrease of 14.40 per cent in the population of the city. The next decade too showed a decrease of 12.32 per cent. This was mainly due to the fatal influenza epidemic which pervaded the city in that period. The decrease of population was partly compensated in the next decade during which an increase of 19.94 per cent in the population was recorded. The decade of 1941 to 1951

registered an exceptional rise in population—an increase of 65.59 per cent. This was primarily caused by the influx of the refugees from Pakistan. Besides, it is evident that Jaipur's population has been rapidly increasing since 1951. This could be due to the natural population growth and the constant flow of immigrants. During the last lap of the decade of 1941–51, Jaipur became the capital of Rajasthan. Consequently, scores of government departments and agencies were shifted to the city. A capital city provides numerous facilities like housing, transportation, communication, education and recreation. All this makes the capital city a more attractive place for immigrants. Jaipur, like other capital cities, has also experienced this metamorphosis. In addition, a host of new avenues of employment were created in the city. The decade of 1951–61 also witnessed the setting up of certain major industries. Thus Jaipur provided an incentive for better jobs to the people living in the neighbouring suburbs and rural areas. Resultantly, a large number of people who came to Jaipur in search of employment ultimately settled with their families in the city.

The immigrants also included some Marwari businessmen who came to Jaipur from Calcutta following the industrial unrest in West Bengal in the late sixties. Many other migrant Rajasthanis who returned to their State for various other reasons also tended to gravitate towards Jaipur in preference to other places in Rajasthan.

COMPARATIVE GROWTH OF POPULATION IN THE NEW AND OLD PARTS OF THE CITY

Formerly, Jaipur was confined to the walled city. But this restricted area could not accomodate fully the steadily rising population. Consequently, the outlying areas were also utilized for residential and other purposes. These areas comprise several newly developed colonies. Being equipped with numerous 'modern' facilities, these localities are attracting an increasing number of people. Notwithstanding the fact that most persons prefer to live in the new colonies, the walled city still remains the major commercial and marketing centre. Table 2.2 presents a comparative picture of population in the new and old parts of the city.

TABLE 2.2
GROWTH OF POPULATION IN THE NEW AND OLD PARTS OF JAIPUR

	Population		Percentage of increase
	1961	1971	
1. Old parts (Wards 1–8)	274,093	353,732	25.4
2. New parts (Wards 9 and 10)	129,351	256,840	98.5
Total	403,444	610,572	

Source : Census data

DENSITY OF POPULATION

With the development of new colonies and the expansion of city municipal limits, there has been a fall in the density of population per square mile. This can be seen from table 2.3. Yet the walled city still remains the most densely populated area; localities outside the enclosed city have a medium density.

TABLE 2.3
DENSITY OF POPULATION IN JAIPUR CITY

Year	Density (per sq. mile)
1911	45,699
1921	40,069
1931	48,060
1941	7,032
1951	11,645
1961	16,138
1971	8,480

Source : "Jaipur City—A Study of Selected Sociological, Economic and Ecological Aspects," p. 96.

PATTERN OF MIGRATION

Taking the year 1941 as the starting point, the inflow of immigrants in the period 1941–46 was very low. After the partition of India, the city gave refuge to a large number of displaced persons. The influx of these people continued till 1950. Besides, Jaipur being a capital city, it attracted a large number of people from rural and suburban areas and even from other towns of Rajasthan. In fact, immigration has been a regular phenomenon in the history of Jaipur.³ This trend of accelerating immigration is likely to persist in the near future.

Population Projection

On analyzing the census data, population of Jaipur can be projected fifteen years hence. Table 2.4 projects Jaipur's population for the years 1981 and 1991. While making the projections, it is presumed that there will not arise any exceptional factor disturbing the prevailing trends in the population growth of Jaipur.

TABLE 2.4
POPULATION PROJECTIONS FOR JAIPUR : 1981 AND 1991

Year	Census figures	Arithmetic rate of increase	Geometric rate of increase	Second degree parabola	Component method
1961	403,444	—	—	—	—
1971	610,572	579,600	599,825	592,040	643,030
1981	—	801,520	893,040	823,410	927,406
1991	—	1,086,245	1,291,760	1,172,030	1,254,570

Source : Draft Master Plan for Jaipur, p. 22.

This population projection gives a growth rate of about 6.5 per cent per year, and thus the population estimated for the year 1991 would be around 12.5 lacs.

On the basis of another projection of 1965 based on the component method, wardwise population of Jaipur in 1981 and 1991 was projected as follows :

TABLE 2.5
ESTIMATED WARDWISE POPULATION OF JAIPUR : 1981 AND 1991

S. No.	Name of Ward	1981	1991
1.	Purani Basti	131,413	178,525
2.	Topkhana Desh	75,491	87,444
3.	Viseshwarjee	37,931	41,024
4.	Modikhana	31,439	33,623
5.	Ramchanderjee	59,540	63,481
6.	Gangapole	40,713	48,677
7.	Ghat Gate	67,515	70,883
8.	Topkhana Hazuri	51,286	59,843
9.	Hawali Shahar Janubi	182,699	294,573
10.	Hawali Shahar Garbi	249,379	376,496

Source : "Jaipur City—A Study of Selected Sociological, Economic and Ecological Aspects," p. 548.

It is interesting to note that the data project an upward trend in the two wards located outside the walled city. Against this, a downward trend has been projected for the first eight wards that lie within the enclosed city. As has been stressed earlier, an increasing number of people are moving to the outlying regions of the city. Hence the population density imbalance between the "old" and the "new" outer city seems to be getting rectified.

NOTES

1. Calculated on the basis of Newton's method of forward interpolation.
2. An interesting study of migration trends from 1947 to 1954 regarding Jaipur city has been made by the Department of Economics, University of Rajasthan, Jaipur.

Housing

After food what one craves for is a comfortable home in a healthy environment. Planned housing development is a prerequisite for the systematic expansion of a city. The growth of employment, social services, recreation and other facets of urban life are intimately related to the availability of housing facilities. Today all the cities embroiled in the unceasing process of urbanization are faced with numerous complex housing problems and Jaipur is no exception to this phenomenon. The city of Jaipur, like most other Indian cities, is experiencing a rapid increase in its population and therefore its residential area is being continuously expanded to accomodate the accelerating demand for greater housing facilities.

TABLE 3.1
NUMBER OF HOUSES AND THE NUMBER OF PERSONS PER HOUSE IN
DIFFERENT WARDS OF JAIPUR CITY, 1921-1961

Name of Ward	Number of Houses					Number of Persons per House				
	1921	1931	1941	1951	1961	1921	1931	1941	1951	1961
1. Purani Basti	3,553	3,400	3,792	3,041	10,329	4.49	5.74	6.25	13.1	5.14
2. Topkhana, Desh	3,104	2,945	2,902	976	9,241	4.74	6.38	8.03	16.5	5.12
3. Viseshwarjee	1,173	1,037	1,053	936	4,488	6.63	9.18	11.78	21.1	5.08
4. Modikhana	1,796	961	952	2,756	4,188	3.70	7.78	11.14	13.2	4.86
5. Ramchanderjee	2,646	2,311	2,792	2,484	7,083	4.74	6.69	7.02	8.9	5.43
6. Gangapole	3,860	3,335	3,235	1,421	3,628	3.71	5.05	3.41	22.9	5.74
7. Ghat Gate	3,493	2,841	2,991	1,994	7,733	4.33	6.67	7.77	17.7	5.68
8. Topkhana Hazuri	2,661	2,436	2,591	3,937	4,387	3.85	4.95	5.77	27.7	6.23
9. Hawali Shahar Janubi	1,477	1,562	2,792	4,765	7,919	4.94	6.45	3.46	9.5	6.08
10. Hawali Shahar Garbi	3,266	2,746	4,930	1,859	1,521	4.11	5.43	5.54	10.9	5.32
Total	27,029	23,774	28,030	24,169	74,257	4.37	6.06	6.27	12.1	5.43

Source : "Jaipur City : A Study of Selected Sociological, Economic and Ecological Aspects," p. 294.

As the above table reveals, the number of houses in Jaipur increased substantially in the decade 1951-61. This also accounts for the decrease in the number of members per house. It may be hypothesized that this increase was an upshot of the accelerated demand for more houses generated after Jaipur was declared the capital of Rajasthan. The needs of the capital city further led to the strengthening of a socio-economic infra-structure which in turn became a catalyst to the rapid expansion of housing facilities. The Government of Rajasthan also took upon itself the task of developing housing facilities for its employees. The proliferation of more houses during 1951-61 resulted in a fall in the number of members per house in the city.

TABLE 3.2
WARDWISE DISTRIBUTION OF HOUSEHOLDS BY RICHNESS* IN FLOOR-SPACE
OCCUPIED IN JAIPUR CITY IN 1965
(in percentages)

Ward	Poor	Middle	High	Very High
1. Purani Basti	25.64	43.80	19.74	10.82
2. Topkhana Desh	28.27	58.92	12.61	—
3. Viseshwarjee	18.76	47.42	22.40	11.42
4. Modikhana	16.18	59.74	12.21	11.87
5. Ramchanderjee	20.62	55.96	21.23	2.19
6. Gangapole	22.99	54.07	17.77	5.17
7. Ghat Gate	17.47	48.00	22.28	12.25
8. Topkhana Hazuri	20.20	63.09	13.42	3.29
9. Hawali Shahar Janubi	19.46	39.29	31.27	9.98
10. Hawali Shahar Garbi	32.91	51.21	11.60	4.28

Source : " Jaipur City," p. 330.

* Class

Floor space occupied

Poor : Less than 100 sq. feet

Middle : 101 to 300 sq. feet

High : 301 to 600 sq. feet

Very High : 601 sq. feet and above.

As is evident from the above table, the middle income group constitutes the majority of the population of the city. In all the ten wards this particular group occupies the maximum number of houses. Next comes the poor class which consists of about 24.35 per cent of the city's population. The high and very high classes together form about 25 per cent of the city's population and their distribution throughout the city is not uniform.

Occupancy Status

One of the important aspects of housing conditions is the occupancy status of households. Occupancy status criteria divide the households into

two categories—those who own the premises they occupy and those living in rented premises.

It may be noted from the table 3.3 that about 44 per cent of households have their own premises, 48 per cent live in rented premises and eight per cent live “free.” Comparing the position between the census of 1961 and the sample survey of 1965, it appears that the gap between the owned and rented households has narrowed during the period under review.

TABLE 3.3
THE OCCUPANCY STATUS OF HOUSEHOLDS IN JAIPUR CITY IN 1961
(CENSUS) AND 1965 (SAMPLE SURVEY)

Occupancy status	Census No.	1961 percentage	Survey No.	1965 percentage	Percentage of total
Owned	6,881	45.9	40,729	47.50	43.51
Rented	8,116	54.1	45,019	52.50	48.09
Living free	—	—	7,859	—	8.40
Total	14,997	100.00	93,607	100 00	100.00

Source : Census 1961 and “Jaipur City,” p. 315.

Bathroom Facilities

Table 3.4 reveals that Hawali Shahar Janubi has the highest proportion of households having the facility of separate bathrooms—about 52 per cent households have this facility. Viseshwarjee ward comes next where about 40 per cent households have separate bathrooms. In wards such as Topkhana Dosh, Ramchanderjee and Gangapole, the facility of separate bathrooms is scarce.

The facility of shared bathrooms exists in the highest proportion in the households situated in Viseshwarjee ward. In Purani Basti, 49 per cent of the households share common bathrooms as against 53 per cent in Viseshwarjee ward. In Gangapole, nearly 83 per cent households are dependent on public bathrooms. Likewise, in Topkhana Hazuri, 76 per cent households and in Ramchanderjee, 65 per cent households have no separate bathroom facilities. Generally, bathrooms were not constructed in old houses. People living in these houses take their bath at any place where a tap is fixed, while most of the newly built houses provide separate bathroom facilities.

It may be pertinent to mention that in its report submitted to the Government of India, the Ford Foundation Team on Urban Housing laid bare the fact that in India, 73 per cent of the dwelling units had no bathrooms. Here, Jaipur's position appears to be a little better than that of the rest of the country.

TABLE 3.4

WARDWISE DISTRIBUTION OF THE HOUSEHOLDS ACCORDING TO THE AVAILABILITY OF BATHROOM FACILITY IN 1965

Ward	Separate bathrooms	Common bathrooms	Using public bathrooms	Total
1. Purani Basti	4,033 (31.95)	6,341 (48.82)	2,615 (20.13)	12,989 (100)
2. Topkhana Desh	1,201 (11.88)	4,323 (42.75)	4,588 (45.37)	10,112 (100)
3. Viseshwarjee	1,865 (40.99)	2,445 (52.52)	342 (7.39)	4,652 (100)
4. Modi Khana	1,928 (23.42)	1,480 (36.95)	1,587 (39.63)	4,005 (100)
5. Ramchanderjee	794 (10.44)	1,795 (25.01)	4,632 (64.55)	7,176 (100)
6. Gangapole	412 (8.66)	417 (8.77)	3,296 (82.57)	4,755 (100)
7. Ghat Gate	1,792 (21.88)	3,276 (40.01)	3,120 (38.11)	8,188 (100)
8. Topkhana Hazuri	829 (14.00)	591 (9.99)	4,497 (76.00)	5,917 (100)
9. Hawali Shahar Janubi	7,412 (51.76)	4,549 (31.76)	2,360 (16.48)	14,321 (100)
10. Hawali Shahar Garbi	4,635 (21.57)	3,944 (18.35)	12,913 (60.08)	21,492 (100)
Total	23,866 (25.50)	29,161 (31.15)	40,580 (43.35)	93,607 (100)

Figures in parentheses denote percentages.

Source : " Household Survey," cited in "Jaipur City," p.346.

Kitchen Facilities

A separate kitchen is an essential facility that each household should have. In Jaipur about 54 per cent of the households have separate kitchens. It is interesting to note that in the city there are no households using a "common" kitchen. But as the data depicted in table 3.5 show, the poor people even use verandahs for cooking purposes. It may be noted that Hawali Shahar Janubi has the highest proportion of households using separate kitchens—about 74 per cent households of the ward. On the other hand in Gangapole ward, only 34 per cent of the households have their own separate kitchens. Interestingly, about 45 per cent of the total households are using one room for all purposes—this trend is very common in the walled city.

TABLE 3.5

WARDWISE DISTRIBUTION OF HOUSEHOLDS ACCORDING TO THE
AVAILABILITY OF THE KITCHEN FACILITY IN JAIPUR CITY IN 1965

Wards	Separate kitchen	Cooking in the same room	Cooking in verandah	Total
1. Purani Basti	6,944 (53.46)	6,023 (46.37)	22 (0.17)	12,989 (100)
2. Topkhana Desh	5,217 (51.59)	4,895 (48.41)	—	10,112 (100)
3. Viseshwarjee	2,401 (51.61)	2,251 (48.39)	—	4,652 (100)
4. Modi Khana	2,089 (52.16)	1,916 (47.84)	—	4,005 (100)
5. Ramchanderjee	3,738 (52.09)	3,438 (47.91)	—	7,176 (100)
6. Gangapole	1,632 (34.32)	3,086 (64.90)	37 (0.78)	4,755 (100)
7. Ghat Gate	4,312 (52.66)	3,876 (47.34)	—	8,188 (100)
8. Topkhana Hazuri	2,267 (38.31)	3,650 (61.69)	—	5,917 (100)
9. Hawali Shahar Janubi	10,570 (73.81)	3,751 (26.91)	—	14,321 (100)
10. Hawali Shahar Garbi	11,624 (54.08)	9,497 (44.19)	371 (1.73)	21,492 (100)
Total	50,794 (54.26)	42,383 (45.28)	430 (0.46)	93,607 (100)

Figures in parentheses denote percentages.

Source : "Household Survey Project," cited in "Jaipur City," p. 351.

LATRINE FACILITIES

Table 3.6 indicates the availability of latrine facilities in the ten wards of the city. On analyzing the table, it becomes clear that separate latrine facilities were available only to 27 per cent households in the city. Substantial number of households (44 per cent) shared common lavatories in 1965. The stench of public latrines is insufferable to the people living in surrounding areas. Their cleanliness must find a top place in the agenda of municipal activities. Twenty per cent of the households had no proper latrine facility. It is noteworthy that in Topkhana Hazuri, 65 per cent of the total households of the ward had no latrine facility at all. Second in order of deprivation was Chowkri Topkhana Hazuri where 36 per cent of the total households were denied the facility of separate lavatories,

TABLE 3.6

WARDWISE DISTRIBUTION OF THE HOUSEHOLDS BY THE AVAILABILITY OF LATRINE FACILITY IN JAIPUR CITY IN 1965

Name of Ward	Separate	Common	Using public latrines	Not available	Total
1. Purani Basti	4,156 (32.00)	7,833 (60.30)	321 (2.47)	679 (5.23)	12,989 (100)
2. Topkhana Desh	1,096 (10.84)	5,690 (56.27)	3,019 (29.85)	307 (3.04)	10,112 (100)
3. Viseshwarjee	1,569 (33.73)	2,722 (58.51)	199 (4.28)	162 (3.48)	4,652 (100)
4. Modikhana	581 (14.51)	3,112 (80.20)	— —	212 (5.29)	4,005 (100)
5. Ramchanderjee	1,713 (23.87)	3,978 (55.43)	650 (9.06)	835 (11.64)	7,176 (100)
6. Gangapole	562 (11.82)	747 (15.71)	344 (7.23)	3,102 (65.24)	4,755 (100)
7. Ghat Gate	1,794 (21.36)	5,007 (61.15)	1,164 (14.22)	268 (3.27)	8,188 (100)
8. Topkhana Hazuri	1,115 (18.84)	2,063 (34.87)	587 (9.92)	2,152 (36.37)	5,917 (100)
9. Hawali Shahar Janubi	7,206 (50.32)	5,736 (40.05)	114 (0.80)	1,265 (8.83)	14,321 (100)
10. Hawali Shahar Garbi	5,619 (26.14)	400 (18.61)	2,110 (9.82)	9,763 (45.43)	21,492 (100)
Total	25,366 (27.10)	40,988 (43.79)	8,508 (9.09)	18,745 (20.02)	93,607 (100)

Figures in parentheses denote percentages.

Source : "Household Survey," cited in "Jaipur City," p. 341.

NEED FOR NEW HOUSING COLONIES

As stressed earlier, the old walled city of Jaipur, on account of a multitude of historical reasons, cannot possibly be expanded further for the purpose of housing construction. In fact, the walled city is in a very bad state, with a crowd of people living unhygienically in crumbling houses. Besides, the once architectural consistency of the city is marred by the recent heterogeneous constructions.

Keeping in view the congestion within the walled city, several new colonies have developed in the outlying areas during the last three decades. Among these colonies are Civil Lines, 'C' Scheme, New Colony, Bani Park, Nahri ka Naka, Shastri Nagar, Adarsh Nagar, Raja Park, Tilak Nagar, Janta Colony, Sethi Colony, Jawahar Nagar, Bajaj Nagar, Gandhi Nagar, Bapu

Nagar, Barkat Colony, Anita Colony, Madhu Ban and others. A relatively more detailed reference to the efforts made by the Rajasthan Housing Board in the development of housing in Jaipur will be pertinent at this point.

ROLE OF THE RAJASTHAN HOUSING BOARD

The Rajasthan Housing Board was set up under the provision of the Rajasthan Housing Board Act, 1970. The objective of the Board is to provide for measures to be taken to deal with and satisfy the need of housing accomodation in Rajasthan. The different income groups have been classified into five categories and each category has been assigned a particular model house. These income groups have been defined as follows :

- (1) Janta Income Group—annual income up to Rs. 2,400.
- (2) Economically Weaker Section—annual income from Rs. 2,401 to Rs. 4,200.
- (3) Low Income Group—annual income from Rs. 4,201 to Rs. 7,200.
- (4) Middle Income Group—annual income from Rs. 7,201 to Rs. 18,000.
- (5) High Income Group—annual income Rs. 18,001 and above. The Housing Board reserves 20 per cent of the houses for the Scheduled Castes/Tribes, ex-servicemen, freedom fighters and the Board employees.

In Jaipur, the Housing Board has already constructed houses under the Nahari ka Naka Scheme, Nahari ka Naka Extension Scheme and Jawahar Nagar Scheme.

Since 1971, three additional registration schemes have been initiated for the allotment of houses in the Housing Board colonies. The comparative figures of registration are given in Table 3.8.

TABLE 3.8

REGISTRATION UNDER THE GENERAL REGISTRATION SCHEME : 1971 AND 1973

Year	Janta	Economically weaker section	Lower income group	Middle income group	High income group	Total
1971*	735	—	1,753	963	—	3,451
1973	6,276	6,106	2,476	1,506	90	16,454

* The 1971 classification of houses included only three categories while in 1973, two additional categories were formed.

ALLOTMENT

Initially the Board intended to allot houses to the registered persons within one to three years from the time of registration. The allotment of houses to the applicants is made through drawing lots under the supervision of the Property Allotment Committee. In Jaipur, the first lot was drawn in April 1972. This provided houses in Nahari ka Naka to 116 applicants. During 1973-74, the Board organized two lotteries—in April 1973 and in October 1973. Besides, draws were held in April 1974, April 1975, October 1975 and April 1976. The comparative figures for the various draws are given in Table 3.9.

TABLE 3.9

ALLOTMENT OF HOUSES IN JAIPUR UNDER THE RAJASTHAN HOUSING BOARD SCHEMES

Draw Periods	High income group	Middle income group	Low income group	Janta	Total
April 1973	—	176	167	7	350
October 1973	10	124	443	88	665
April 1974	46	238	510	328	1,122
April 1975	80	500	588	47	1,215
October 1975	22	75	152	100	349
April 1976	9	262	680	745	1,696
Total	167	1,375	2,540	1,315	5,397

Source : Rajasthan Housing Board.

Despite concrete efforts being made by the Housing Board to provide houses at economical rates to the weaker sections of society, it is generally felt that the monthly instalments payable to the Board for the houses purchased on hire purchase system are beyond the reach of these under-privileged sections. For example, paying even Rupees 30 to 40 per month for a house constructed under the "Gandhi Grih" Scheme is a difficult proposition for a poor man. In this context the Chairman of the Board recently observed :

Under these circumstances unless new schemes of constructing small houses with maximum use of local building material and totally new designs are evolved, it will not be possible to satisfy the need of housing accommodation for the economically weaker section of the population.

Keeping in view the rising cost of land and the inevitable scarcity of space for construction of houses, the Housing Board has, quite appropriately, undertaken the task of constructing multi-storeyed houses. Such buildings

comprising several sets of flats have been planned in the Lal Kothi area. Of these flats, 350 were allotted in the April 1976 draw. The total land acquired by the Housing Board in this area is 2,280 acres.

Looking to the scarcity of land, vertical expansion of the city seems to be a possible solution, though it has certain disadvantages : Nearly twenty per cent population of the city owns cattle which require sufficient ground space. Besides, during summers there is the problem of sleeping space as the roof and terrace are not accessible to all the dwellers in a building.

THE CO-OPERATIVE SECTOR

The State Government, in pursuance of its policy to promote the co-operative sector, has encouraged the growth of several co-operative societies for the purposes of construction and allotment of houses to their members. In Jaipur alone, the number of such societies is about 125. These organizations have purchased about two thousand bighas of agricultural land and have allotted sixteen thousand land plots to their members. However, the number of such plots may go up to about twenty thousand in case a lower ceiling is fixed for these plots.

It is quite reasonable to develop the co-operative housing sector in urban areas. Nevertheless, the gross impact of such societies on the integrated development of Jaipur has been rather dysfunctional. Quite a number of housing societies have remained dormant as the agricultural land in their possession has not yet been converted into *abadi* land. Moreover no *abadi* land is reserved for housing societies by the local bodies and the financial resources of the housing societies are inadequate for purchasing land in the open market.

Essentially these societies have not kept in view the broader requirements of the city and have instead concentrated only on their own interests. The upshot of this has been a proliferation of ill-planned housing colonies in different parts of the city. An important factor responsible for the growth of housing colonies in a haphazard manner is the people's tendency to circumvent formal official procedures and cumbersome legalities required in the construction process. All this has certainly been detrimental to the planned development of the city. Besides, a few societies have misappropriated members' money, thus harming gullible poor people.

It is essential therefore to reassess the performance of these societies and to take appropriate remedial action whenever irregularities are detected in their functioning. Besides the immediate need is to provide finances to the deserving co-operative societies in order to make them 'supportive' systems of the total housing construction enterprise. In this particular context, the role

of the Rajasthan Co-operative Housing Finance Society Limited deserves special mention.

ROLE OF THE RAJASTHAN STATE CO-OPERATIVE HOUSING FINANCE SOCIETY LIMITED

The Rajasthan State Co-operative Housing Finance Society Ltd. was set up on 31 December, 1970 with the objective of granting loans and advances to co-operative housing societies registered in the State. The Society's objective is to encourage the construction of well-planned colonies where the modes of environmental cleanliness could be observed. Special attention is given to the Scheduled Castes and Scheduled Tribes under the amended by-law 77 of the Rajasthan State Co-operative Housing Finance Society Ltd., Jaipur. This by-law stipulates that "in any Co-operative year ending 30th day of June, at least 20 per cent of the total loans advanced by the Society shall be in such housing Co-operative societies of which at least 80 per cent of the members are of Scheduled Tribes." Presently, the Society is giving loans to thirteen co-operative housing societies. The relevant details are presented in table 3.10

TABLE 3.10

DETAILS RELATING TO CO-OPERATIVE HOUSING SOCIETIES FINANCED BY THE RAJASTHAN STATE CO-OPERATIVE HOUSING FINANCE SOCIETY LTD.

(As on 30 June 1976)

Name of society	Sanctioned loan (in Rs.)	Disbursed amount (in Rs.)	No. of plots	Constructing agency
1. Madrapura Co-operative Housing Society	2,15,000	1,71,800	39	Self
2. Balaibasti	56,000	1,68,00	14	Self
3. Hasanpura 'A'	4,68,000	3,63,600	117	UIT
4. Hasanpura 'B'	2,68,000	2,68,000	67	Self
5. Sikar House 'A'	84,000	58,800	21	UIT
6. Sikar House 'B'	36,000	10,800	9	UIT
7. Shanti Nagar	1,24,000	1,24,000	31	Self
8. Suraj Nagar	1,16,250	—	31	Self
9. Dhannadas ki Bagichi	1,64,000	—	41	UIT
10. Dayal Bhawan	1,56,000	1,56,000	39	Housing Board
11. Santosh Nagar	1,44,000	1,44,000	36	Self
12. Premnagar Painter	3,60,000	1,68,750	96	UIT
13. Basant Bihar	4,49,000	4,49,000	24	Self
Total	26,40,250	19,31,550	565	

Source : Rajasthan State Co-operative Housing Finance Society Ltd.

It is of interest to note that out of 13 societies being financed by the Rajasthan State Co-operative Housing Finance Society Ltd., 11 belong to the members of Scheduled Castes and Scheduled Tribes.

There is still some confusion about the Suraj Nagar and Dhannadas ki Bagichi societies, as the desired response has not been forthcoming from the members of these societies. Therefore, the likelihood is that development plans of these societies may have to be dropped.

CONCLUSION

In the absence of a sound and well-defined housing policy, the issue of housing development in Rajasthan has remained relatively under-emphasized. With the alarming growth of urban population and a heavy influx of immigrants from adjoining rural areas, it has become imperative now to rationally formulate a State housing policy which would take into account the demographic, economic, socio-cultural, town planning and other associated factors.

The first step in evolving a housing development scheme for the city of Jaipur would be to conduct a detailed survey of the housing requirements of the city population, on the basis of which alone a perspective plan for the city housing can be evolved systematically. While estimating demand of housing, ability to pay rent or to build houses must be taken into consideration. In other words distinction should be made between *demand* and *effective demand*.

Lack of active governmental involvement in the enterprise of providing shelter to the people has resulted in anomalies of a welfare state. Thus on the one hand the city of Jaipur is dotted with elegant buildings owned by the rich and the super-rich, on the other, majority of the people live in sub-human conditions without a roof of their 'own'. In the wake of new socio-economic programme, it is reasonable to expect from the Government a readjustment of its priorities for the benefit of the underprivileged. It is heartening to note that the Government through its recent land allotment policy has shown keen awareness of its obligations in this sphere.

The Housing Board should accord primacy to the task of constructing low-cost houses for the economically weaker sections. Thus the programme of building *Gandhi Grihs* which has been postponed for a long time should be invigorated. The U.I.T. should allocate land to the Housing Board without further delay. Low-cost housing needs to be backed by a properly organized research which would help in augmenting new building resources at economic costs. A rigorous comparative survey of efforts made by different States in this realm might prove useful. It seems worth serious consideration to undertake a colossal program of constructing low cost houses which would have provision for meeting the basic requirements of a small family. Adequate arrangements should be made for providing loans to the

needy persons at minimal interest rates. Besides the first instalment towards the repayment of the loan should not be burdensome. The financial base of Rajasthan State Co-operative Housing Society Ltd. needs to be further strengthened.

While implementing low-cost housing scheme, it might be advisable to seek the co-operation of direct beneficiaries of the scheme. These beneficiaries can contribute by way of providing free labour and exercising supervision during the construction work.

In order to provide living space to immigrants from the rural areas who flock to the city in search of employment, institutional housing in the form of *dharamshalas* could be provided. The Government should also encourage the private sector to undertake the construction of such *dharamshalas*.

It is also necessary to provide adequate accommodation to the working women who are living alone in the city. So far there has been little initiative shown by various social welfare agencies in this realm. Setting up of a number of working women's hostels is therefore an urgent requirement.

The Government and the large-scale private organizations should take upon themselves the task of providing their employees with suitable accommodation. Recognition of this social responsibility by these institutions would be in tune with the demands of a welfare state. It would be ideal to develop residential colonies for employees in the vicinity of their place of work itself. However, where land use plan does not permit so, a synchronization of transport facilities and housing development schemes in the city should be effected.

Jaipur, covering more than 130 villages, has a large number of rural pockets. It is of crucial importance to give a fillip to rural housing development schemes so that the rural folk do not overpressurize the urban settlements.

To supplement the urban ceiling policy, the Government should further curb the land speculation tendencies of the urban dwellers. In addition, the time-lag between land purchase and house construction should be reduced to the minimum in order to dissuade people from making land dealings a source of their illegitimate income.

Slum Clearance

With the increasing growth of urbanization and industrialization, a multitude of people is flocking towards the cities in search of jobs and better living. Providing adequate housing facilities to this great number of migrants remains a challenging task. As a result, all the big cities of the world today are dotted with squalid slum localities. Though the word 'slum' has acquired a world-wide usage, it has not been precisely defined so far. However, a "slum is usually understood to be an area of overcrowded, squalid, closely built and unhygienic housing."¹ A. R. Desai and S. Devdas Pillai regard slum as "basically an area of darkness, despair and poverty."² Thus slum is a "squalid festering morass of lost hope, debased standard and despair" which "generates a morbid mentality and blunts community consciousness and aesthetic values."³ Amidst the squalid physical surroundings the slum dwellers lead a debased life. Slums in Jaipur do not offer a different picture from the one described here.

Jaipur has patches of dirty slums which detract from the beauty of the city. Here the people live in unhygienic conditions, deprived of the essential amenities of life and in perpetual dread of the inevitable natural occurrences like heavy rains and storms. Most of these slums are located on the periphery of the city. A large number of slum-dwellers are immigrants from the neighbouring villages. Coming in search of better jobs, these persons squatted wherever they found a little space, changing their abode very often. Most of the slum dwellers belong to the working class and are motor mechanics, rickshaw-pullers, harijans and labourers surviving on daily wages.

THE SORDID CONDITIONS

According to a survey conducted in 1971 by the Urban Improvement Trust of Jaipur, there were (and still are) 109 slum localities within the municipal limits of Jaipur. Out of these, 73 are under the jurisdiction of

Urban Improvement Trust and the remaining 36 are in the Jaipur Municipal Council limits. However, there do remain other slum areas which were not included in the 1971 survey. Many of these have grown on privately owned land.

In official jargon, *katchi basties* of Jaipur have been accepted as synonyms of "slums." Yet there are numerous *pucki basties* which for the purpose of slum clearance programme alone have been categorized as *katchi basties*. However, the living conditions in these localities are no less sordid than those found in areas littered with *katcha* houses.

In 1971, as table 4.1 reveals, 96,604 persons constituting 15.8 per cent of the city's population lived in these slums. The slum population consisted of 20,661 households living in 37,441 houses. It also indicates that the respective average figures for the number of persons per house in the slums, outside the slums, and in the city taken as a whole were 2.6, 8.0 and 6.1. These statistics reveal that people in the slum areas are living in less congested houses than those living in the non-slum regions. However, the slums are generally one room tenements—very often *katcha*—while other parts of the city have multi-storeyed *pucka* houses. As such the average of 2.6 persons per house in the slums could be taken as equivalent to 2.6 persons per room in the big houses in the areas outside the *katchi basties*.

Regarding the occupancy status of slum-dwellers, it was found that almost all the slums had mushroomed on illegally occupied Government land. These slum localities had developed haphazardly, presenting an unpleasant picture of poor inhabitants living in squalid surroundings.

THE TASK OF URBAN RENEWAL

The survey conducted by the Urban Improvement Trust, Jaipur was a prelude to the main task of converting *katchi basties* into more livable localities. In fact, urban renewal has become a challenging problem for the Government because it involves the development of a large number of *katchi basties*. Removing the squalor from the *katchi basties* and providing civic amenities to nearly one lac people living in these localities is a herculean task. Since 1971 the Government has been paying greater attention to the development of these areas. The immediate objective in this context is to rehabilitate the slum-dwellers in the same *basti* that they have been living in for years by giving them plots of land at cheaper rates and also to provide *pucka* roads, water and electricity in these areas. To achieve this goal, the Urban Improvement Trust, Jaipur Municipal Council, Rajasthan Housing Board and several co-operative housing societies are working in a concerted manner. A special cell has been created in the U.I.T. to deal with the problems

TABLE 4.1
NUMBER OF SLUMS IN JAIPUR CITY, ALONGWITH DISTRIBUTION OF POPULATION, OCCUPIED HOUSES,
HOUSEHOLDS AND PERSONS PER HOUSE INSIDE AND OUTSIDE SLUMS (1971)

No. of slums	City population		No. of occupied houses in the city		No. of households in the city		Persons per house in the city		Total
	In slums	Outside slums	Total	In slums	Outside slums	Total	In slums	Outside slums	
109	96,604 (15.8)*	513,968 (84.2)	610,572 (100.0)	37,441 (37.4)	62,623 (62.6)	100,064 (100.0)	20,661 (28.4)	87,324 (71.6)	107,985 (100.0)
							2.6	8.0	6.1

* Figures in parentheses denote percentages.

Source : On the basis of the data provided by the UIT, Jaipur, the office of the Chief Town Planner, and the Jaipur Municipal Council, cited in "Programme for Integrated Services for Children and Youth in the City of Jaipur" (Jaipur : Department of Sociology, University of Rajasthan, 1972), mimeographed, p. 370.

related to the development of *katchi basties*. This cell consists of two executive engineers, nine assistant engineers and 40 overseers. Considering the increasing role of housing co-operative societies, two co-operative inspectors have been appointed to supervise the functioning of these bodies.

On the twenty-fifth anniversary of India's independence, the Rajasthan Government had declared that it would provide public taps and electric connections in all the *katchi basties*. Following this declaration a sum of Rupees five lacs was granted by the State Government for the development of *katchi basties* in the year 1972-73. Initially the Urban Improvement Trust selected 13 *katchi basties* for this purpose. The amount was utilized in constructing *pukka* roads and drains in the following slum localities :

1. Amritpuri
2. Dhannadas ki Bagichi
3. Baees Godam
4. Madrampura
5. Fakiron ki Basti
6. Barodia Basti
7. Sikar House
8. Painter Colony
9. Nayakon ki Basti
10. Hasanpura Harijan Basti
11. Hasanpura Raigar Basti
12. Kassabpura
13. Nataniyon ka Bagh

Despite the State Government's keenness to develop all the *katchi basties*, it found itself handicapped in financial matters. Rightly, therefore, it sought the help of the Central Government for provision of sufficient funds to enable it to execute its overall plan of urban renewal.

CENTRAL ASSISTANCE, E.I.P. AND PLANNED DEVELOPMENT

It may be interesting to note that the city of Jaipur was included in the Environmental Improvement Program (E. I. P.) of the Central Government and under this program five projects were prepared, the first one having been drawn up in March, 1973 for six *katchi basties*; later, one more project was added and these six projects were sanctioned a sum of Rs. 98,18,763 by the Central Government. 60 *katchi basties* with a population of 82,215 were covered under these projects. Details regarding these are presented in the table 4.2. Scheme for the seventh project for additional 13 *katchi basties* covering about 10,000 person and involving an estimated expenditure of approximately Rs. 17 lacs was in the finalization stage at the beginning of September, 1976.

TABLE 4.2

NUMBER OF BASTIES, POPULATION COVERED AND THE FINANCIAL OUTLAY UNDER THE E. I. P.

(As on 31 May 1976)

Project	In UIT area	No. of basties in municipal area	Total	Population covered	Amount sanctioned (in Rupees)	Amount spent (in Rupees)
First	6	—	6	10,464	12,30,110	14,48,000
Second	3	—	3	11,894	12,58,000	11,91,335
Third	9	3	12	19,330	22,18,353	20,72,782
Fourth	4	1	5	7,706	8,43,500	10,24,811
Fifth	6	13	19	12,932	13,32,000	12,54,246
Sixth	4	11	15	19,889	29,36,800	15,09,494
Total	32	28	60	82,215	98,18,763	85,00,668

Source : Urban Improvement Trust, Jaipur.

The Environmental Improvement Program initially aimed at providing $4\frac{1}{2}' \times 8'$ wide *pucka* roads, public stand posts for drinking water, street lights, public bathrooms, toilets and a drainage system. But it was realized that taking up developmental work as envisaged under Environmental Improvement Program alone would not solve the problems of slum dwellers. Therefore it was decided that planned development work will be undertaken in these *katchi basties* by the U.I.T. to provide the following facilities :

1. Pucka roads : In the original Environmental Improvement Program the road construction did not envisage any redesigning of road sites through a system of planned development; only the existing *katcha* roads were to be converted into *pucka* roads. However, the U. I. T. modified the Environmental Improvement Program and decided to construct roads of 20' width with only 8' being made *pucka* for the time being and the rest of it to be developed later according to the resource position of the Trust.
2. Public stand posts for drinking water.
3. Street lights.
4. Drainage system.
5. Parks and other public utilities.
6. Formation of housing co-operative societies.
7. Distribution of *pattas* (allotment letters) for plots at concessional rates.
8. Allotment of equal size plots.

9. Construction of *pukka* houses in a planned manner through the loan made available by the Rajasthan State Co-operative Housing Finance Society Ltd.

The Urban Improvement Trust had taken up work in 45 *katchi basties* but its activities in a large number of these basties have remained incomplete, as the money was spent according to "planned development" and not in the manner envisaged in the Environmental Improvement scheme. For completing this work an additional sum of Rs. 22,92,000 is required for which a request is pending with the State Government. The project at Nahari ka Naka is faced with a particular problem, that of removing massive sandunes. "Planned development" cannot continue until the sandunes are leveled and it is estimated that leveling of sandunes would cost nearly Rupees 200 lacs. Therefore, for the time being, the U. I. T. has excluded these *basties* from the development work and has taken up operations in other *katchi basties*.

THE SLUM CLEARANCE PROGRAM

In addition to the Environmental Improvement Program of the Central Government, a Slum Clearance Program was started at the initiative of late Chief Minister, Shri Barkatullah Khan, on 21 August 1971. He announced that all the slum dwellers would be allotted plots of land if they did not possess any other plot in the city. The U.I.T. was entrusted with the responsibility of implementing this declared policy. A survey was conducted by the Collector of Jaipur from 16 to 20 September, 1971 in all the *katchi basties* to ascertain the number of households in these *basties*. The household heads were allotted a survey number so that the distribution of plots could be facilitated and no ineligible person could take advantage of the schemes. Initially the State Government sanctioned Rupees five lacs for this programme; twenty-one slum localities were selected for this purpose.

ALLOTMENTS AND LOANS

Active participation of the slum-dwellers was considered essential for the success of the slum clearance program. Appropriately, therefore, they were encouraged to organize housing co-operative societies which would facilitate the construction of *pukka* houses. Such co-operative societies are registered with the Registrar of Co-operative Societies after the verification of the following two points by the Urban Improvement Trust :

- i) that the land where the *katchi basti* is located is Government land and,
- ii) at least 17 members possess the survey numbers.

After a housing co-operative society is registered and the office bearers elected in the presence of co-operative inspectors, there are chances that some

non-residents may also become its 'members' by employing underhand means. As a safeguard against this practice a list of the members of the society is published in the leading newspapers and objections over the list and the fresh claims are invited. These claims and objections are dealt with in the *jalsa-i-aam* on a notified date. The City Magistrate, the Secretary of Urban Improvement Trust, Executive Engineer-I, Executive Engineer-II and Deputy Town Planner attend the *jalsa-i-aam* to settle claims for the allotment of plots.

Looking to the number of residents in the *katchi basties* and the limited availability of land, the size of plot is limited to an area of 60 to 111 sq. yards. The allotments are made at a very cheap rate, i.e., three rupees per sq. yard. By the end of May 1976, 5785 plots had been allotted in various *katchi basties*. Four types of houses were proposed to be constructed for these *katchi basties*, three of them costing about Rs. 4700 each. These houses consist of one bed-room, one multipurpose room and a bathroom, in all covering an area of 245 sq. feet and costing Rs. 18 per square foot.

But it was soon realized that the sum of Rs. 4700 is not within the easy reach of a slum dweller. Here it is interesting to note that a study group was sent to Kerala to observe the models of houses costing only Rs. 1300 each. On the basis of its report a new model costing Rs. 2500 was designed for the *katchi basties* of Jaipur.

To grant loan facilities for constructing houses in *katchi basties*, the Rajasthan State Housing Finance Co-operative Society Ltd. has offered its services. The Society grants loans upto Rs. 4000 to housing co-operative societies. It has also played an active role in persuading the slum-dwellers to organize housing co-operative societies. Moreover, UIT's *katchi basties* cell provides assistance to slum dwellers right from the stage of registration to that of putting up applications for the loan.

FACILITIES TO THE SCHEDULED CASTES AND SCHEDULED TRIBES

The Scheduled Castes and Scheduled Tribes, being the weaker sections of the society, have been given special privileges by the State Government. The Social Welfare Department of the State has sanctioned Rs. 300 to each Scheduled Caste family for the construction of a *pukka* house. A Scheduled Caste or Scheduled Tribe member has to contribute Rs. 100 only as his share to the co-operative housing society while others have to pay Rs. 480. Moreover, the Rajasthan State Co-operative Housing Finance Society Ltd. provides interest-free loans to the Scheduled Caste and Scheduled Tribe families.

THE PROBLEM AREAS

A growing city can always learn from the experience of those metropolitan centres which have already suffered the pangs of chaotic urbanization.

Relatively speaking, slums in Jaipur do not present a very dismal picture, although the fact remains that their eradication requires urgent and concerted action on the part of the urban authorities. The immediate task before these authorities is to convert the existing slum areas into more inhabitable places as also to prevent the future growth of slums in the city.

Uprooting the 'Surplus' Population : As already mentioned, the slum removal program initiated in Jaipur in 1971 has a unique characteristic. While in most of the Indian cities efforts are directed towards the eradication of slums by shifting the slum population to absolutely newer places, in Jaipur, on the other hand, attempts have been made to rehabilitate the slum-dwellers in those very localities where they had been living for years. This policy implies a two-fold advantage: it does not disrupt the pattern of services provided by the erstwhile slum dwellers to the neighbouring communities and secondly, the system recognizes the slum dwellers' love for their land. Nevertheless the policy pursued by the State Government is not without its share of blemishes. In order to convert the congested slum localities into planned colonies, more land is required and therefore all the residents cannot be rehabilitated in the same *basties* in which they had been living. The 'surplus' residents who have to be uprooted from their occupied land are extremely reluctant to co-operate with the authorities.

Removing Illegal Occupancy : Presently the biggest problem facing U.I.T. is to dislodge the squatters who have illegally occupied plots of land in *katchi basties* since 21 Aug. 1971. As these squatters are not entitled to receive plots, they hinder the development work and also provoke others not to co-operate with the authorities. When a road is constructed the settlements coming in the way are shifted to other places. But these squatters refuse to move from their living place and thus obstruct the construction work. Attempts by the authorities to persuade them often prove futile and they have to take recourse to police force. Thus the U.I.T. requires greater authority to implement its program of rehabilitating the slum dwellers in a planned manner.

Absence of Compulsory Legislation : At present there is no compulsory slum clearance legislation in the State and therefore the Government has to depend upon request, persuasion and influence to elicit the co-operation of slum-dwellers. There are certain vested interests who obstruct the implementation of development schemes in *katchi basties*. For instance, many non-residents attempt to grab land at cheap rates in these *basties* by using under-hand means. In most *katchi basties*, a large number of persons have squatted after 1971, though as per the declared policy they are not entitled to get plots of land in these *basties*. Whenever any decision is taken against the interest of these intruders, they are likely to impede the progress of developmental schemes by taking recourse to dilatory measures including litigation.

Acquiring Private Land : The areas declared *katchi basties* contain several patches of private land. Settlements in these places cannot be legalized unless the Government acquires this land from private owners. Due to paucity of funds this land has not been taken over by U.I.T. Disputes over these plots often obstruct the implementation of the declared policy of settling the inhabitants in the same *basti* that they have been living in since 1970 or before. The residents cannot be allotted plots of land unless the Government takes over the possession of this land. For example, in Shivrinar—*a katchi basti*—31000 square yards of land is under dispute and the people dwelling in this area are still without their own plots. Besides, it may be suggested that efforts should be made by U.I.T. to acquire land at Jhalana doongar from the forest department and also the land behind leprosy hospital at Agra Road.

Shortage of Civic Amenities : There is also a pressing need for schools, hospitals, and recreational facilities in the slum localities. But presently the Government has confined its schemes to providing *pucka* houses, roads, water and electricity in these *basties*. Attempts are also being made by voluntary organizations to start some dispensaries in these localities. The urbanization of an area requires the active co-operation of the Government, voluntary organizations and the people. In Jaipur, however, there appears to be very little visible contribution made by the non-governmental sector. The co-operative sector can contribute significantly to the inculcation of greater consciousness for self-help among people and thus assist in making the new localities ideal places for healthy living.

Uncleanliness : Uncleanliness permeates throughout the slum areas. Heaps of garbage, streaming filthy water and the roads constantly covered with slush are characteristic features of a slum area in Jaipur. The prime cause of this unpleasant sight is the absence of an effective drainage system which is a prerequisite to keep the slum areas neat and the constructed roads intact. While under the E.I.P., *pucka* roads have been constructed and public taps installed, inadequate attention has been paid to drain the water out of these areas. There are *pucka* lanes in several *basties* but they are devoid of drainage facilities for outlet of the collected water. Consequently slushy water forms itself into small pools. Moreover the roads constructed with much efforts are being worn out by the constant flow of water. Topkhana Desh is one such area where the dirt and filth have become a permanent eyesore. Though the locality has many spacious buildings of rich businessmen, uncleanliness has not been swept away. The main problem of the area is that despite *pucka* lanes having been constructed, there are no drains. This blocks the water on the roads. Over the period the situation has worsened and though not originally a slum area, this locality has now turned into one. Today its

inhabitants have to dwell amidst squalor. The insufferable smell smothering the whole area cannot be ignored. The poodles of blackened water can be crossed only by stepping on the stones improvised for pedestrains' convenience. The large number of stray pigs loitering in the region add to the pervasive uncleanness.

The public taps though very useful to the residents have become surrounded with mud and filth. There is no outlet for the flowing water which forms a peninsula around the tap. Pollution is a natural consequence of this filth. The parks in the *basti* are also in a similar state. The fenced boundary walls enclosing the parks are littered with dumps. The surrounding uncleanness makes it hard to believe that parks like these can serve as the 'lungs' of the city.

Developing Community Consciousness : Cleanliness of a *basti* should not solely depend upon municipality or any other external authority. It is the duty of the inhabitants to keep their locality neat and clean. Only with the continual efforts of the dwellers can a locality remain a clean place. Slum mentality of the dwellers needs to be changed. Their passive acceptance of the vegetating conditions of human life should be replaced by a new awareness of responsible citizenship. Growth of slums can be checked by imparting social education to the slum dwellers. Bairwa Basti within Topkhana Hazuri is a fine example of this. The *basti* is kept spick and span by the residents themselves. There are *pucka* lanes and drains which are regularly cleaned. In the centre of the *basti* there is a beautiful temple which is also used for community meetings.

Scarcity of Financial Resources : Development of *katchi basties* is a herculean task and very often the Government has to face serious problems in achieving the targetted results in this particular sphere. 60 *katchi basties* in the city have been included in the development programmes while 47 are still left out and remain to be included in future projects. For the development of these remaining slum localities a sum of Rs. 125 lacs will be required. Notably, an expenditure of Rs. 150 per person has been proposed under the Environmental Improvement Program.

Determining Market Rate for Land : Many problems remain even after the land is allotted to the slum dwellers. Problems crop up regarding *nazrana* rates and the availability of loan. According to the Government decision of June, 1975 the *katchi basti* dwellers should be charged Rs. three per sq. yard for the first 111 sq. yards and for the rest of land in possession of the dwellers, market rates should be charged. The major decision to be taken is to determine whether the market rate should be 'current' or that prevailing in 1971. Moreover, it is difficult to prescribe the market rate for

katchi basti plots because so far there has been no auction of land in these localities. If the rates current in the surrounding areas are charged, they will be exorbitant for most of the slum dwellers.

Involving Private Agencies : A large number of localities are inhabited by industrial workers. Unwillingness on the part of the employers to arrange for adequate accommodation to such workers has also been a factor in the growth of slum areas. The employers importing labour force from the suburban areas should provide sanitary living conditions to their workers. It is only with the involvement of private agencies that the Government can speed up the slum clearance programme in the city.

Reassessing Housing Requirements : The prevailing notion which is also implied in the slum clearance policy is that every slum dweller must have a house of his own. This really is impracticable. Moreover, the immigrant slum dwellers do not bring all of their family members to the city and they still have their belongings—and generally a house too—in their villages. These residents should be provided suitable living accommodation at reasonable rent. Such an accommodation for a large number of people can be provided by co-operatives, corporations and governmental authorities.

Preventing New Slums : To prevent future growth of slums the immigrants should not be allowed to squat anywhere they like. Certain receiving shelters should be set up where the minimum requirements of people are catered to at reasonable rates.

At the second stage when the person has secured a suitable job, basic accommodation should be provided to him near his place of work. The rent paid by him should be in keeping with his meagre earnings.

The final stage will be to bestow ownership upon the person who has strengthened his economic position and is capable of having his own house.

PRIORITIES

A permanent solution to the problem of "slum development" requires a fixation of priorities, keeping in view the specific exigencies of a particular slum area. For a city of the size of Jaipur the following need-patterns can be identified :

1. Short-term or immediate needs would include supply of drinking water, electricity, access to roads and provision for sanitation.
2. Second preference would comprise community facilities, schools, health centres, public parks and transport facilities.
3. Long-term needs would consist of slowing the process of immigration, improving urban-rural balance, providing employment opportunities

to the inhabitants, specially by extending loan facilities for setting up small scale industries and rendering vocational assistance to the people in order to make them self supporting. The land use plan for a particular region should be prepared in conformity with local conditions and requirements. Plots of land should be allotted to the slum dwellers on the condition that the Government will take back the land if it is not used in the expected manner.

In fact, the ultimate goal is to integrate the erstwhile slum areas with the rest of the urban community and for this, generation of consciousness regarding healthy modes of living among the inhabitants is a prerequisite.

NOTES

1. "Slums and Slum Clearance," in *Encyclopedia of Urban Planning*, edited by Arnold Whittick (New York : McGraw Hill, 1974), p. 905.
2. "Introduction" in A. R. Desai and S. D. Pillai, eds., *Slums and Urbanization* (Bombay : Popular Prakashan, 1970), p. iii.
3. S. K. Gupta, "Slums" in *Encyclopedia of Social Work, Vol. I* (New Delhi : Government of India, 1968), p. 210.

Water Supply

Water is the prime 'sustainer' of human life. It is no wonder therefore that the most prominent civilizations have flourished on river banks. Though not blessed with a natural river, the city of Jaipur has had its own perennial sources of water supply. In Jaipur, till the last phase of the nineteenth century, demand for water was met mostly by wells dug throughout the length and breadth of the city. However, with the growth of population the need for more regular sources of water supply became intense. In 1873, Amanishah Headworks was installed with a capacity of supplying 10 lac gallons of water per day. Subsequently its capacity was increased threefold.

On account of the ever-increasing demand for water, another scheme was launched in 1931, involving a cost of Rs. 32.95 lacs. This project of Ramgarh Bandh—situated in the vicinity of the city—was stipulated to cater to the requirements of about 15,000 people. Its initial capacity was limited to 22 lac gallons per day. Later however it underwent two gigantic expansion schemes in 1955 and 1963 respectively. As a result of these schemes the daily water supply from Ramgarh Bandh has gone up to 75 lac gallons.

EXISTING SUPPLY ARRANGEMENTS

The current quantum of water supply to the city is about 220 lac gallons, out of which 75 lac gallons are supplied from Ramgarh Bandh, 35 lac gallons from Amanishah Headworks, while tubewells in the city provide 110 lac gallons. Notably, both Ramgarh and Amanishah are already tapped for the maximum discharge and therefore the tube-wells remain the major source for the additional water supply.

It is pertinent to mention that the total water supply to the city is reduced by about two million gallons per day during summers. This aggravates the water problem in the most needy days.

TUBE-WELLS

At the end of 1974 there were 98 tube-wells, dispersed in the outskirts of the city. An additional number of 25 tube-wells were installed in 1975, which brought the total number to 123. Table 5.1 shows the number of tube-wells in the city according to their location.

TABLE 5.1
TUBE-WELLS IN JAIPUR

Locality	Number of tube-wells
Banipark	9
Nahri ka Naka	13
Ambabari	5
Jhotwara	3
Khatipura	1
Shantinagar	8
Civil Lines	6
Gandhi Nagar	6
Bajaj Nagar	5
Tilak Nagar	6
Sethi Colony	5
Janta Colony	1
Adarsh Nagar	12
Jawahar Nagar	7
Amritpuri	1
Truck Stand	1
C-Scheme	5
Secretariat	2
Medical College	2
Bapu Nagar	8
Ruparampura	3
Durgapura	2
Pahadganj	2
Gijgarh House	1
Moti Doongri Road	4
Station Road	5
Total	123

Source : Public Health Engineering Department, Government of Rajasthan, Jaipur.

In addition there are 31 tube-wells in Amanishah Zone which supply 35 lac gallons water per day. Out of these, nine are situated at *nallah*, four each are located in forest land and Bassi Sitarampura, while five are installed on the Shastri Nagar-Jhotwara Road.

The uniform strata of earth in Jaipur facilitates the operation of tube-well machinery and also enables the engineers to deploy high speed

machines for extracting underground water. Normally underground water level in Jaipur is 72' to 90' below the surface. This indeed is a favourable situation for the water supply system. In selecting sights for the installation of tube-wells there emerge certain problems. A tube-well can be installed in Government land only, as the private land owners do not allow a tubewell to be bored in their own land. This impedes the process of scientifically spacing the tube-wells according to the prescribed standards.

PIPELINES

There is a network of pipelines sprawled throughout the city for carrying water from reservoirs to the places of consumption. From Ramgarh Bandh water is taken to Laxman Doongri where it is filtered and channeled to different parts of the city. To increase the water pressure on elevated places, pipelines of 16" and 14" dia have been installed upto Brahmpuri and Rajamal Talab, while in Purani Basti Chowkri pipelines of 8" and 6" dia have been laid. The colonies of Tilak Nagar, Gandhi Nagar, Civil Lines, Banipark, Shantinagar, Hasanpura, and Nahri ka Naka have been divided into higher and lower zones to facilitate equal distribution and pressure of water in these areas. In addition, about 90,000 metres of large-sized pipelines have been laid. In Shantinagar, Gopalbari, Ajmer Road, 22 Godowns and other areas, pipelines of 20" to 8" dia have been laid. In addition, a number of pipelines have been laid, tested and commissioned.

WATER CONNECTIONS AND PUBLIC TAPS

Ideally each household should have a separate water connection. But this has not been possible as a large number of poor people cannot afford the installation of taps in their houses. For these people public taps have been installed in almost all the localities. Table 5.2 presents data regarding water connections and public taps in Jaipur over a period of 14 years, viz, from 1961 to 1974.

TABLE 5.2
WATER CONNECTIONS AND PUBLIC TAPS IN JAIPUR : 1961-1974

Year	No. of house connection	Percentage increase in house connections	No. of public taps	Percentage increase
1961	14,374	—	587	—
1964	20,226	+40.7	635	+8.1
1971	37,727	+80.8	643	+1.3
1974	43,220	+14.5	704	+9.6

Source : Compiled by the survey unit of this project on the basis of the data supplied by the Chief Engineer, Public Health Engineering Department, Jaipur.

As table 5.2 reveals the increase in the house connection during the 14 year period under review was almost threefold. In 1961 there were 14,374 house connections, while their number reached to 43,220 in 1974. Compared to this the increase in the number of public taps has been rather slow. From 1961 to 1974, only 117 additional public taps were installed in the city. It has been observed that about 35 per cent of the public taps are located in Hawali Shahar Janubi and Hawali Shahar Garbi. This is understandable in view of the fact that colonies with predominantly poor population residing in shanties are considerably dependent upon public taps.

CONCLUSION

Presently the daily water supply to the city of Jaipur is of the order of about 220 lac gallons—40 lac gallons short of the estimated demand. With the swelling of population and the per capita increase of water consumption, the problem of water scarcity is likely to assume greater proportions in times to come. It is estimated that the city will require 480 lac gallons of water per day in 1991.

In order to meet the additional requirements and replenish the depleting water resources, alternative avenues of water supply have to be devised. This should be done in the broader framework of a long-range comprehensive plan for the city. Construction of new tube wells will have to be speeded up in a phased manner. Besides, it will be crucially important to expedite the completion of the Banas river project. It is proposed to bring water to Jaipur from the Isarda dam to be constructed at the river. This project should be able to considerably enhance the amount of water supply to the city. Yet this stipulated scheme may not prove to be a panacea for the city's water scarcity problems.

Wastage of water must be checked. For this legal measures may not be enough, as the growth of civic consciousness has no substitutes. Nevertheless some standard setting in this regard may have to be resorted to by the public authorities. In several localities in the walled city and out-lying areas there is a conspicuous problem of irregular supply of water. The problem becomes acute in the mornings particularly when the period of water availability ranges from one to two hours only. Besides, the pressure of water is generally low and consequently the people living in upper storeys feel the pinch of water scarcity more. The problem is grave in the walled city where the water is supplied for limited hours only. Many a time the desperate waiting of the people ends in disappointment when there is no water supply for the whole day. The situation needs to be rectified through better administrative arrangements and greater technical supervision over the distribution centres. Unbroken power supply to Ramgarh and to the tube-wells can further remedy the situation.

The shortage of meters with the Government compels a large number of house-owners to buy their own meters from the market. This in turn puts the responsibility for their repair on meter-owners themselves. Ideal situation would be for the Government to supply all the meters and also take upon itself the responsibility for their proper maintenance. It has been observed that even the Government meters are not repaired on time and generally a huge backlog of unrepaired metres accumulates. A more synchronized availability of material and staff for this purpose is an urgent requirement. The obsolete metres should be replaced with the new ones in order to minimise the depreciation cost.

The payment of water rate bills at the existing centres in the city would not pose much problem if consumers do not unnecessarily wait for the last date of payment to come. A greater civic consciousness in this regard can reduce the burden on the collection staff during the final "due" dates. However, it may be advisable to open an additional centre outside Chandpole Gate which may serve the consumers of Nahri ka Naka, Shastri Nagar and Jhotwara Road.

Lastly, the perennial problem of impurity of Jaipur's water needs to be attended through a crash programme of water purification.

Electricity Supply

Transmission lines of electricity are the prime animators of urban life. Jaipur, experiencing a developmental metamorphosis, depends for its multi-faceted growth on the constant supply of power. The history of electricity supply in the city can be traced back to the times when Jaipur was a princely state. During that period, the thermal power station situated near the Jaipur railway station was the only source of electric power in the city. At present, however, Jaipur is receiving power from five different sources, viz., Bhakra Nagal, Rajasthan Atomic Power Station at Rawatbhata, Chambal Project (comprising Jawahar Sagar, Rana Pratap Sagar and Gandhi Sagar dams) at Kota, and the two power generating units—one thermal and another diesel-run—situated in the city.

THE ELECTRICITY SUPPLY

The Rajasthan State Electricity Board is entrusted with the responsibility of distributing electric power in the city. For the purposes of electric and lighting arrangements the city has been divided into six zones, known as Zones A-1, A-2, B-1, B-2, C-1 and C-2. Besides, there are two other subdivisions, HTM-1 and HTM-2, which maintain the High Tension System. For rationalizing electricity supply system, the city of Jaipur, has 13 electricity sub-stations, located at the following places.

1. Adarsh Nagar
2. Chandpole
3. Civil Lines
4. Gandhi Nagar
5. Nirvan Marg
6. Ramganj Chaupar

7. Ramniwas Garden
8. Residency
9. Sriji Ki Mori
10. Sanganer
11. Purana Ghat
12. Jhotwara
13. M. R. E. College

THE CONSUMPTION PATTERN

Table 6.1 presents data concerning the consumers of electricity in Jaipur according to different categories.

TABLE-6.1
PARTICULARS OF CONSUMERS SERVED IN JAIPUR CITY, 1973-76

S. No.	Category	Number of consumers			Percentage for 1975-76
		1973-74	1974-75	1975-76	
1.	Domestic				
	(a) Light & Fan	45,016	44,720	48,817	
	(b) Heat & Power	7,790	8,852	10,358	
		52,806	53,572	59,175	67.74
2.	Commercial				
	(a) Light & Fan	14,160	17,399	18,440	
	(b) Heat & Power	3,401	4,754	5,098	
		17,561	22,153	23,538	26.95
3	Industrial				
	(a) Low & Medium Voltage	2,482	2,594	2,773	
	(b) High Voltage	36	38	40	
		2,518	2,632	2,813	3.22
4.	Street Lighting	85	89	90	.10
5.	Irrigation	1,044	1,029	1,037	1.19
6.	Public Water Works	52	167	190	.21
7.	Others	68	504	513	.59
	Total	74,134	80,146	87,356	100

Source : Rajasthan State Electricity Board.

Thus in 1975-76, about 68 per cent of the consumers in Jaipur belonged to the domestic category. This figure is likely to go up incrementally with the growing process of urbanization. Next come the commercial consumers which constitute about 27 per cent of the total clientele. The industrial enterprises, though comprising a little more than three per cent of the total consumers, are supplied substantial amount of electricity. This will be clear from table 6.2. For the rest of the categories number of consumers is meagre,

although it does not fully reflect the quantum of consumption in respective categories.

TABLE 6 2
ELECTRICITY SUPPLIED AND REVENUE OBTAINED BY R.S.E.B. IN JAIPUR
CITY IN 1973-74 (ACCORDING TO CATEGORIES OF CONSUMERS)

S. No.	Category	Electricity Supplied (M.K.W.)	Revenue (In Rs.)
1.	Domestic		
	(a) Light & Fan	16.777	67,87,369.06
	(b) Heat & Power	4.054	10,60,429.41
2.	Commercial		
	(a) Light & Fan	10.973	49,42,108.93
	(b) Heat & Power	4.059	10,20,769.66
3.	Industrial		
	(a) Low & Medium Voltage	14.569	26,91,621.09
	(b) High Voltage	58.893	93,80,955.18
4.	Street Lighting	1.889	7,78,482.68
5.	Irrigation	3.183	4,67,429.14
6.	Public Water Works	15.447	18,95,298.55
7.	Others	6.082	18,48,179.09
Total		135.926	3,08,72,644.59

Source : Rajasthan State Electricity Board.

Glancing over the figures in table 6.2 we find that the bulk of the electricity supply in the city is being consumed by industrial units. In 1973-74, out of the total supply of 135.926 M. K. W., industries were utilising 14.569 M.K.W. low and medium voltage and 58.893 M. K. W. high voltage. Next was the category of domestic use to which 20.831 M.K.W. was apportioned. In all, there were 52,806 electric connections in the 'domestic light and fan' and 'domestic heat and power' categories. It may be pertinent to mention that under the present by-laws, power connections cannot be given to *katcha* houses. This provision brings down the figure of household electric connections in Jaipur. Even otherwise, the quantum of electricity consumed for domestic purposes forms only a meagre position of the total electricity supplied to the city. Although about 68 per cent of the consumers belong to this category, their total consumption is only of the order of 16.6 per cent of the overall gross consumption for the whole city.

In terms of revenue, the industries paid a large sum, i.e. Rs. 12.08 million out of the total revenue of about Rs. 30.09 million. This is only an indicator of the important role of the industries in the city's development. Further, it is hoped that with growing industrialization, the share of industries in electricity consumption and revenue will go up substantially.

TABLE 6.3
PARTICULARS OF UNITS SOLD DURING 1975-76 IN JAIPUR CITY CIRCLE

S. No.	Category	City Division-I		City Division-II		Total : Jaipur City Circle	
		During 74-75	During 75-76	During 74-75	During 75-76	During 74-75	During 75-76
1.	Domestic						
	a. Light and Fan	8,919,471	9,999,044	10,149,917	11,555,781	19,069,388	21,554,825
	b. Heat and Power	1,384,642	1,515,007	3,596,095	3,923,710	4,280,737	5,438,717
2.	Non-Domestic						
	a. Light and Fan	4,733,771	4,937,958	5,133,687	4,828,778.70	9,867,458	9,766,736.70
	b. Heat and Power	1,167,668	1,122,135	1,584,245	1,525,546	2,751,913	2,203,929
	c. Light and Power and 3 K.W.	2,293,765	3,089,668	5,271,367	7,390,512	7,565,132	10,923,950
3.	Industrial						
	a. Small Scale	5,382,997	6,064,587	4,039,198	4,313,021	9,422,195	10,377,608
	b. Medium Scale	3,259,129	3,919,744	3,025,855	3,091,488	6,284,984	7,011,232
	c. Large Scale	60,044,747	58,775,822	3,901,906	5,355,514	63,946,653	64,132,336
4.	Public Lighting	1,153,855	1,473,243	633,461	688,445	1,787,316	2,161,688
5.	Agriculture	773,186	690,988	2,361,137	2,219,097	3,134,323	2,910,085
6.	Public Water Works						
	a. Small		2,046,469		2,617,767		4,664,236
	b. Medium	14,062,405	1,346,299	{ 2,985,096	270,856	{ 17,047,501	1,617,155
	c. Large		11,784,263		451,971		12,236,234
7.	Distributing Licencies						
8.	Mixed Load LT.—7						
		2,870,808	2,960,684	4,953,138	3,963,050	7,413,946	6,923,734
	Total	106,036,444	109,725,929	47,235,102	52,196,536.70	153,271,546	161,922,465.70

Source : Rajasthan State Electricity Board.

Table 6.3 giving the data of units sold during 1974-75 and '75-76 respectively and table 6.4 presenting details of the connected load according to category of consumers during 1973-76 underscore this point.

STREET LIGHTING

Table 6.5 reveals that the number of metering points of street lights at the end of 1975-76 were 90, while the number of bulbs used for this purpose was 14,505. Most of the roads in Jaipur have lighting arrangements. The main bazars are well illuminated but as we move into the interior of new colonies we find that no proper arrangements for lighting exist. Though the electric lines have been laid, many bulbs and tubelights are fused or broken. A large number of lanes and roads engulfed in pitch darkness belie the fact that these neglected areas belong to a capital city. To rectify the situation, a fool-proof system of periodic checking of street lights and the replacement of fused lamps should be undertaken. It may be suggested that a single authority either—the Jaipur Municipal Council or the Urban Improvement Trust—should be made responsible for looking after the maintenance of street lighting arrangements in the city. Besides, the bulbs and tubelights used should be of a certain prescribed standards in order to make them last longer.

TABLE 6.4
CONNECTED LOAD IN JAIPUR CITY DURING. 1974-75 AND 1975-76

S. No.	Category	Connected Load in K.W.	
		1974-75	1975-76
1.	Domestic		
	a) Light & Fan	23,481	25,635
	b) Heat & Power	10,453	12,108
2.	Non-Domestic		
	a) Light & Fan	8,667	9,246
	b) Heat & Power	3,678	4,115
	c) Light & Power above 3 K.W.	6,391	6,864
3.	Industrial		
	a) Small Scale	16,721	17,971
	b) Medium scale	9,527	9,979
	c) Large scale	37,252	37,771
4.	Street Lighting	1,260	1,276.5
5.	Irrigation and Dewatering	4,058	4,100
6.	Public Water Works		
	a) Small	1,616	1,905
	b) Medium	536	679
	c) Large	3,085	3,085
7.	Distributing Licencees	—	—
8.	Mixed Load (LT-7)	5,846	6,019
Total		132,471	140,753.5

Source : Rajasthan State Electricity Board.

CONCLUSION

With the growing industrialization and the increasing requirements of the swelling population of Jaipur electricity supply is bound to emerge as a ticklish problem. The quantum of electricity available for domestic, commercial, industrial and other sectors must match the multiplying demands of urban life. For this, fullest tapping of the existing capacity of power sources needs to be supplemented with exploration of further avenues of electricity supply. Stabilizing the operation of Rajasthan Atomic Power Station should be at the top of the agenda of Rajasthan power development scheme.

The street lighting arrangements need to be improved upon. The Master Plan of Jaipur has rightly stressed that the main roads in the walled city should continue to have underground cables for street lighting. Mirza Ismaile Road—the Central thoroughfare of the city—and other commercial centres should be decked with attractive lighting arrangements. Other lanes and roads should also be well lit with proper spacing of lamp posts. A comprehensive city plan for this purpose appears to be an urgent necessity. Lastly, a well-co-ordinated system of street lighting maintenance should be devised making a single agency responsible for this purpose.

Interruptions in the electricity supply are recurrent phenomena in Jaipur. These occur on account of shortage of sensitive protective equipments, alternate feed supply and an overloaded system. Besides, the long transmission lines carry greater susceptibility to faults in electricity supply. The situation can be remedied by expansion of high tension lines system. Such a system is likely to minimize interruptions and arrest the problem of low voltage. The irregular functioning of the Rajasthan Atomic Power Project also adds to the fluctuations in power supply to the city.

The consumers also tend to overload the meters by using more points than are actually sanctioned. The use of a fridge and an air-conditioner without applying for an extra plug—a common tendency found among the electricity consumers—inevitably causes voltage to go down. Thus the consumers' ignorance of the uses of electricity often becomes a cause of disturbance in the power supply. It would be desirable therefore to undertake a program of instructing the consumers in the usages of electricity. Furthermore, industrial units consuming extra power should be legally compelled to refrain from this irresponsible practice.

Transportation

Growing urban centres necessitate the sprawling of transportation networks. Increasing distances between the places of residence and the places of work need to be covered in the minimum time with least tension. Besides, access to the centres of shopping, recreation, health and education requires a well developed system of transportation, linking the pivotal points of an urban complex. Lately the transport system of most metropolitan areas has been greatly affected by severe congestion, poor road surfaces, mixed traffic, and inadequate terminal facilities. Jaipur too has been encountering similar problems. The walled city of Jaipur was well laid out, divided into squares which were enclosed by main roads. The roads of walled city were wide enough to sustain the heavy traffic of modern times. But the roads system outside the walled city has not developed in conformity with the original pattern. The character of the city—a fine blend of tradition and modernity—is well reflected in the transport system. The famous wide roads of Jaipur are trodden upon by a variety of vehicles—traditional as well as modern. Neoteric cars, stuffed buses, noisy three-wheelers, old fashioned tongas and man driven rickshaws move on the same roads. Slow moving camel-carts and bullock carts are also regular sights. Privately owned scooters and cycles are however the most numerous. It is pertinent to note that in 1970, the total number of registered vehicles in Jaipur was 27,589, while in 1975, the number had gone up to 49,885.

CITY TRANSPORT SERVICE

Though all varieties of conveyance are available in the city, most of the people seem to opt for the nationalized city bus service, primarily because its charges are within the reach of the common man. The city transport now is an integral part of Rajasthan State Road Transport Corporation—the Jaipur

depot of the RSRTC being the biggest in the whole State, regularly expanding its services to meet the ever increasing demand of the growing population.

The C. T. S. renders two types of services: (i) muffasil services and (ii) city services.

Muffasil Services : The city transport service is limited to the area within 11 miles of the city. The routes exceeding this limit are called muffasil routes. These routes link Jaipur with its neighbouring towns and villages within the district. Dausa, Bagru, Shahpura, Chomu and Chaksu are the terminating points for these muffasil routes. City bus services on these routes benefit a number of passengers who daily come to the city. In fact, these services are indispensable for the milk and vegetable supply to Jaipur city. The average passenger load on muffasil routes is recorded and the time schedule is often changed to suit the convenience of the passengers. The milkmen carrying more than 30 litres of milk are given 50 per cent concession. Minimum charge from a passenger is 80 paise.

City Service : The City bus service provides linkages among five important centres, viz., the Secretariat, Collectorate, Courts, Hospitals and the Railway Station. Within the city the buses ply on several routes, busily rushing to and fro, carrying thousands of passengers everyday. These routes cover almost all the important areas in the city. Keeping in view the demands of the people, the number of buses and time schedule often change. Since July, 1976, two circular bus services have been introduced which link the places located on the periphery of the city. Starting from Ajmeri Gate, the buses pass through Bapu Nagar, Tilak Nagar, Raja Park, Adarsh Nagar, Janta Colony and Ghatgate to come back to the starting point.

Rate Structure : Compared to other means of transport buses are the cheapest conveyance available. The minimum charge is 20 paise for distance upto two kilometers; 30 paise are charged for the distance from two to four kilometers; 40 paise for four to six kilometers; 50 paise for six to eight kilometers; and 60 paise for eight to ten kilometers. Even with this rate structure, the C.T.S. is in the red.

Facilities to the Passengers : For the convenience of the waiting passengers, sheds have been erected at several important bus stops. There are Station Incharge officers posted at the important bus stops such as Manak Chowk, Ghatgate, Railway Station and Bari Chowpar to deal with the grievances of passengers. They also ensure that the buses move at the right time. Three flying squads are always on the move checking irregularities in the buses. Besides there are 19 Assistant Traffic Inspectors in the city posted on different routes to see that there are no obstacles in the smooth functioning of the buses. For the daily passengers there is a provision for

monthly passes—students get 50 per cent concession and non-students 25 per cent.

Problems : Though the number of buses has been increasing regularly in the city, their shortage is always felt. Long queues of waiting passengers, passengers dangling on to the doors of moving buses are indicative of the scarcity of buses. Overloaded buses not only encourage ticketless travelling but are also accident-prone.

The inadequate number of buses appears to be on account of the limited financial resources of RSRTC. Many buses sometimes lie unrepaid in the workshop for want of right spare parts. Of course, a sterner check on the crew and the workshop staff has mitigated slackness in the operation of the C.T.S. It is suggested that to overcome this shortage of buses, some buses may be taken on contract from the private companies. The ultimate aim of the CTS should be to provide a greater number of buses in the city, so that no other means of transport will be required. The initial step has already been taken by stopping the tempo service in certain areas of the city and substituting it with the CTS. This might also lessen the aggravation of the problem of mixed traffic and lead to a more manageable state of traffic control. This would require a concerted perspective planning on the part of the CTS.

Looking to the growing fleet of city buses, it may be suggested that there should be two depots instead of one for better supervision of the bus-service. The present single depot is likely to be overburdened and thus may not operate as effectively as the management would like it to.

OTHER MEANS OF TRANSPORT

Apart from the buses there are tempos, scooter rickshaws, cycle rickshaws and tongas operating in the city. Services of these means are indispensable in the feeder regions where the buses do not ply.

Although normally the tempos can seat twelve passengers, they usually take more than their seating capacity will allow. However, the tempos ply in large numbers on some fixed routes, such as Ajmeri Gate to Sanganer and from Sanganeri Gate to Rajapark. Since the buses are not available frequently on these routes the quick tempo service has become popular with the daily passengers.

Till recently the scooter rickshaws did not have the meter system. In December, 1975, however the State Government decided to regulate the rate structure at 60 paise per kilometer, with one rupee as the minimum charge.

If one has the time to spare, tongas and rickshaws are ideal for a leisure ride. The rickshaw pullers generally 'hire' the rickshaws, for very few of

them really own their vehicles. Tonga service is gradually declining in the city due to the costly maintenance of horses.

Notably, rickshaws and tongas have no fixed prices and this causes great inconvenience to the passengers. Much depends upon the bargaining skill of the passengers and the 'moods' of the drivers.

A point about ensuring greater traffic security may be made here. It appears pertinent to underscore the need for introducing the system of seat-belts in cars and buses; making the crash helmets compulsory for the scooter drivers and the pillion riders; and construction of speedbrakers on all important roads and lanes.

FUTURE TRANSPORTATION MASTER PLAN FOR JAIPUR

The perspective plan for transportation has been evolved in the Master Plan of Jaipur keeping in view the regional significance of the city, the aim being to provide adequate links with the neighbouring towns and other parts of the country. Transportation plan for Jaipur should also facilitate the smooth movement of goods and passenger traffic.

In the Master Plan, a hierarchical system of roads has been suggested for the unchecked movement of goods and people around and within the city. A hierarchical system for the circulation pattern would ensure optimum use of the different types of roads and streets in the city. It has been well recognized that the land use plan and transportation plan should function as complementary to each other. Two bypass roads have been recommended for National Highways Eight and Eleven. These shall also serve as the outer ring roads of the city, encompassing the new residential areas and also the major industrial complexes. Apart from these bypass roads towards the south and the north of the city a bypass for Amber and an inner ring road linking Agra road and Ajmer road have been proposed. These ring roads will help in putting an end to the extraneous traffic presently going through Mirza Ismail Road and other congested roads of the city.

The Arterial and Sub-Arterial roads will provide direct linkages between the various functional areas and the major roads will be connecting the residential areas and work centres. Moreover there will be feeder roads, collector streets, residential streets and loop streets. The standard right-of-way proposed for the different roads is presented in table 7.1.

TABLE 7.1
RIGHT-OF-WAY IN DIFFERENT TYPES OF ROADS PROPOSED
IN THE MASTER PLAN

Types of Roads	Right-of-way (in feet)
Bypass roads	300
Arterial roads	200
Sub-arterial roads	160
Major roads	100
Feeder roads	80
Residential streets	40 to 60
Loop Streets and <i>cul-de-sacs</i>	30

Source : Master Plan of Jaipur.

Road Intersections : Faulty layout of the crossroads obstructs the free movement of traffic, leading to congestion and delay. Therefore more attention should be paid to the proper designing of all the road intersections. It is suggested that all the important road intersections as well as speed breakers should be redesigned after examining the traffic volume and movement pattern.

Railway Crossings : Frequent closing of gates at road-railway crossings checks the free movement of traffic. At present there are only two overbridges, one at Ajmer Road and the other at Tonk Road. The Master Plan has proposed the construction of overbridges at the following points :

1. Overbridge at Bhawani Singh Marg to Civil Lines (north of Baees Godam to Railway Station).
2. Overbridge at inner ring road towards the south (Jaipur-Delhi and Jaipur-Malpura lines).
3. Overbridge at the bypass road near Jhotwara Industrial Area (Jaipur-Sikar line);
4. Overbridge at the bypass road near the airport (Jaipur-Delhi and Jaipur-Malpura lines); and
5. Overbridge at the bypass road in the west (Jaipur-Ajmer line).

Grade separators have been proposed on some of the important level crossings.

Bus and Truck Terminals : Looking to the requirements of increasing inter-city passenger traffic, the existing bus terminus at Sindhi Camp is quite inadequate. Therefore, the proposed circulation plan provides for one Central Bus Terminus and three other major points, which will be clear from the following table.

TABLE 7.2

PROPOSED BUS TERMINUS IN THE CIRCULATION PLAN

Name	Land
1. Central Bus Terminus on Ajmer road, north of the overbridge	12 acres
2. On Nirvan Marg near the Sanitorium	8 acres
3. On Agra road near Truck Stand Scheme	8 acres
4. On Tonk Road near the Stadium	8 acres

Source : Master Plan of Jaipur.

Alongwith these bus terminals three truck terminals have also been proposed at the following places.

- | | |
|---|----------|
| 1. On Agra road near junction of National Highways 8 & 11 | 50 acres |
| 2. Near Jhotwara Industrial Area | 18 acres |
| 3. Near Sanganer Industrial Area | 40 acres |

Railways : The proposed municipal area of Jaipur includes seven railway stations—Jaipur West, Jaipur Junction, Jaipur South, Gandhi Nagar, Sanganer, Durgapura and Sanganer town. It is recommended that the railway compounds should be extended and additional facilities provided at the existing stations of Jaipur West, Jaipur South, Gandhi Nagar and Sanganer town. Sufficient land has been earmarked at these railway stations to provide for facilities such as parking of vehicles, loading and unloading of goods, godowns and warehousing. Considering the future possibilities of Jaipur being linked up with broad gauge railway system, strips of land on either side of main railway line have been earmarked for this purpose.

Airport : Keeping in view the anticipated increase in the air-traffic during the next twenty years it is proposed that the existing airport should be expanded, eventually covering about 1550 acres. This will also facilitate the landing of bigger and heavier aircrafts. A new terminal building is proposed to be constructed on the north of the airport.

Thus the Master Plan has elaborately designed a developmental scheme for the expansion of transportation facilities in the city. What is required is a continuous reappraisal of the progress achieved in this direction and modify the priority pattern according to the fluctuating needs of urbanization.

APPENDIX TO CHAPTER VII

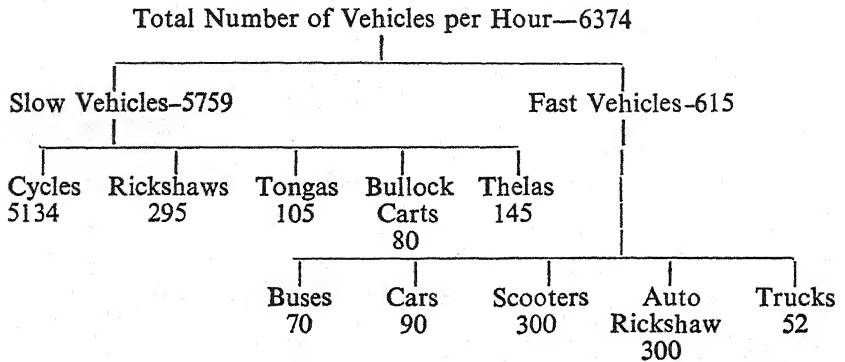
FINDINGS OF A SEMINAR ON TRAFFIC AND TRANSPORTATION PROBLEMS

On 25 February 1976, the Institute of Engineers (India) Rajasthan Centre, Jaipur organized one day Seminar on Traffic and Transportation Problems at which four papers dealing specifically with the traffic problems of Jaipur were presented. The following suggestions were among those made :

1. Segregation of traffic, introduction of more one way streets, and pedestrian precincts.
2. Designation of the following special prompt service squads :
 - a) Sand bank removal squad;
 - b) Pot holes redressal squad; and
 - c) Repairs and replacement of traffic signals squad.
3. Rigid enforcement of vehicular quality standards.
4. Adequate street lighting.
5. Enforcement of traffic rules regarding cyclists to be made more strict.
6. Training the populace in traffic rules.
7. Checking vehicles with protruding loads.
8. Arbitrary on street parking to be checked and adequate parking space provided.
9. Checking of vehicles being stopped in mid-street for boarding, alighting or talking.
10. Bus and tempo boarding and alighting points should not be near intersections.
11. No new petrol pumps should be allowed to be located on intersections.
12. A careful survey should be done of which roads chiefly cater to slow traffic, which to fast traffic and which to both, so as to form relevant traffic regulations.

In this context the following chart seems to be relevant.

CHART 7.3
NO. OF VEHICLES PASSING CHANDPOLE MARKET AND GOING IN ONE
DIRECTION DURING RUSH HOURS



13. Separate cycle tracks should be planned.
14. A standing traffic coordination committee be set up for the planning of transport and traffic in Jaipur.

The Education Services

Education is the crux of a civilized society. It is the means by which people are moulded in the urbane culture of the cities. The process of spreading education among all the people also accelerates the growth of urbanization. In the development of Jaipur city, education has always been accorded prime importance. The city has been a seat of learning since its very inception. The founder of Jaipur, Sawai Jai Singh, invited erudite Sanskrit savants alongwith some French and Portugese scholars to reside permanently in the city. This practice of patronizing the great scholars was perpetuated by Sawai Jai Singh's descendants. Education thus flourished in the city in a very congenial environment.

EVOLUTION

An organized system of education was initiated in the city in 1834 when a Sanskrit school and an English language school were started. They were raised to the status of colleges in 1852. The first college imparting education along the modern lines was started in 1844 by Maharaja Ram Singh. The following year saw the emergence of Maharaja Sanskrit College where education was imparted in six *shastras*.

The Jaipur State Primary Schools Act was enacted in 1946 which led to the establishment of primary schools in every ward of the city. In the field of higher education, a major breakthrough was made with the setting up of the University of Rajasthan in 1947. Since then a great number of institutions have emerged to impart education at various levels. The voluntary agencies are very active in the field of education and today innumerable private educational institutions have mushroomed in all the corners of the city.

POSITION IN 1964

Table 8.1 presents the number of educational institutions alongwith students and teachers in the year 1964. It reveals that out of total number of 249 educational institutions, nursery and primary schools were the highest in number. There were only 39 Middle Schools and 29 Higher Secondary Schools as against 163 Nursery and Primary Schools. In 1964 the University

of Rajasthan had four constituent colleges, viz., Maharaja's College, Maharani's College, Rajasthan College and Commerce College and several affiliated colleges including Agarwal College, Pareek College and Subodh College.

TABLE 8.1
THE CATEGORY-WISE DISTRIBUTION OF EDUCATIONAL INSTITUTIONS
AND NUMBER OF TEACHERS AND STUDENTS IN JAIPUR CITY (1964)

Category	No. of Institu- tions	No. of Teachers	No. of Students	No. of Stu- dents per Institution	No. of Students per Teacher
Nursery and Primary Schools (I-V)	163	836	20,200 (38.71)*	161	31
Middle Schools (VI-VIII)	39	381	10,884 (16.08)	279	20
High & Higher Secondary Schools (IX-XI)	29	874	21,360 (31.84)	743	25
Colleges and University	8	477	7,275 (10.75)	909	15
Technical and Professional Institutions	10	215	1,773 (2.62)	177	8
Total	249	2,783	67,682 (100)	272	24

* Figures in parentheses denote percentage of the totals.

Source : Compiled by the City Survey Project, University of Rajasthan, Jaipur, cited in "Jaipur City," p. 454.

There were also operating several vocational and training colleges, viz, S.M.S. Medical College, Government Ayurved College, Malviya Regional Engineering College, Industrial Training Institute, College of Nursing, Teachers Training College and Maharaja's School of Arts and Crafts.

SITUATION IN 1973-74

Table 8.2 presents an overview of the school facilities in the year 1973-74. As the data reveal the number of primary schools was the highest, that is 210 : primary schools for boys were 197 while those for girls were only 13. It may be noted that the table does not record the numerous unrecognized private schools that have come up in all parts of the city. Next to the primary schools are the middle schools where education is imparted upto eighth class,

But as against a large number of primary schools (210), the number of middle schools was rather small (67). However the disparity between the girls and boys middle schools was not so great as that between the primary schools for girls and those for boys. The secondary schools were the smallest in number, only i.e. only 14. The higher secondary schools were more in number than the secondary schools, though not really adequate for an expanding city like Jaipur. The total number of school-going children in Jaipur during 1973-74 was 1,11,199, with the largest number (38,776) going to primary schools. The number of students in middle schools was 36,443 as against 27,985 in the higher secondary schools. Interestingly, the secondary schools had only 7,995 students during the period under review.

It may also be noted that the above table does not record the numerous unrecognized private children's schools and private coaching colleges that have mushroomed in an unplanned manner throughout the city. Nursery and primary schools are sprawling constantly in various parts of Jaipur. Most of these schools have inadequate accommodation and teaching staff. Leaving aside the Government primary schools, rest of the schools claim to have English medium and thus attract a large number of students from upper middle class, although the fee charged by these institutions is exorbitant.

TABLE 8.2
NUMBER OF SCHOOLS, NUMBER OF TEACHERS
AND STUDENTS IN JAIPUR CITY : 1973-74

Level of Schools	No. of Schools			No. of Students			No. of Teachers
	Boys	Girls	Total	Boys	Girls	Total	
1	2	3	4	5	6	7	8
Higher Secondary School	15	10	25	18,401	9,584	27,985	1,131
Secondary School	10	4	14	4,404	3,591	7,995	328
Middle School	53	14	67	22,107	14,336	36,443	1,289
Primary School	197	13	210	23,693	15,083	38,776	1,279
Total	275	41	316	68,605	42,594	1,11,199	4,017

Source : Compiled by the unit of this project on the basis of the data provided by the Inspector of School, Jaipur and *Directory of Educational Institutes, 1973-74* (Bikaner : Directorate of Primary and Secondary Education, 1974).

HIGHER EDUCATION

Over the years, Jaipur has emerged as a prime centre of higher learning in North India. The University of Rajasthan with its numerous post-graduate departments and four constituent colleges for undergraduate studies has developed as the most significant educational institution in the State. It caters to the educational demands of the local people as also of the young men and women coming from other parts of Rajasthan and other States. The 25 University post-graduate departments include those of Physics, Chemistry, Zoology, Botany, English, Hindi, Sanskrit, Philosophy, Psychology, Music, History, Geography, Sociology, Political Science, Public Administration, Law, Economics, Business Administration, Accountancy and Statistics and Economic Administration. Provision also exists for professional education in Library Science and for the study of French, Russian and German languages. The University has a massive Institute of Correspondence Studies which organizes programmes for post-graduate and undergraduate degrees in several subjects. There is also functioning an Institute of Business Management which runs two year courses leading to the degree of Masters in Business Administration.

Besides the University college, viz., Rajasthan College, Commerce College, Maharaja's College, and Maharani's College, the city of Jaipur has Kanoria College for women, Sathya Sai College for women, L. B. S. College, Subodh College, Agarwal College and Pareek College. In addition, Jaipur has a number of professional and technical institutions of higher learning, including S. M. S. Medical College, Malviya Regional Engineering College and Government Ayurvedic College.

Table 8.3 presents the figures of enrolment in various institutions of higher learning during 1974-75.

TABLE 8.3
ENROLMENT IN COLLEGES IN JAIPUR DURING 1974-75

S. No	Name of the College	Students Enrolled
1	2	3
1.	Rajasthan Shikshak Prashikshan Vidyapeeth	99
2.	Digambar Jain Acharya Sanskrit College	16
3.	Dadu Acharya Sanskrit College	2
4.	Maharaja Sanskrit College	73
5.	Malviya Regional Engineering College	876
6.	Lal Bahadur Shastri College	916
7.	Rajkiya Ayurved Mahavidyalaya	500
8.	Agarwal College	2,210
9.	S. S. G. Pareek College	536
10.	Sri Sathya Sai College (for women	95
11.	S. S. Jain Subodh College	999

1	2	3
12.	Kanoria Mahila Mahavidyalaya	929
13.	S. M. S. Medical College	880
14.	Rajasthan College	1,163
15.	Maharaja's College	1,869
16.	Maharani's College	2,140
17.	Podar Institute of Management	55
18.	University of Rajasthan (post-graduate departments)	1,982
19.	University Studies in Law	2,289
20.	Institute of Correspondence Studies (B. Com. and Post-graduation)	3,962

NON-FORMAL AND ADULT EDUCATION

It is being realized now that non-formal, adult and life-long education, besides the formal education system, is also important. As a result several new centres of non-formal and adult education have been set up in the city. Details of these centres are given in Table 8.4.

TABLE 8.4
NON-FORMAL EDUCATION CENTRES IN JAIPUR CITY
(AS ON 1 March, 1976)

S. No.	Location of Centre	No. of Centres	For Men	For Women
1.	Bihani Ramganj	2	1	1
2.	Kali ki Kothi	2	1	1
3.	Khaniya	1	1	—
4.	Jalupura	2	1	1
5.	Durgapura	1	—	1
6.	Mithilesh Vidya Mandir	2	—	2
7.	Katchi Katehra Basti	1	—	1
8.	Moti Katla	2	2	—
9.	Raigron ka Mohalla	1	—	1
10.	Anaj Mandi	2	1	1
11.	Oont Walén ka Mohalla	1	1	—
12.	Hathroi	1	1	—
13.	Hasanpura	1	1	—
14.	Nahri ka Naka	1	1	—
15.	Saraswati Kund	1	1	—
16.	Topkhana Desh	2	1	1
Total		23	13	10

Note : (1) The age group of all beneficiaries is 8 to 20 years.

(2) The total number of students in these institutions is 674.

(3) All the centres are run by the Lok Shikshak Sansthan, a voluntary organization.

Source : Secretary, Rajasthan Adult Education Association, Jaipur.

Realizing fully well that education is not limited to class rooms and that in the modern world of knowledge explosion there are a lot many new skills and techniques to be acquired, there has been set up recently the Institute of Continuing Education and Development in the city of Jaipur. Following the motto that learning is a life-long process, the institute proposes to organize courses for improvement of English, Russian and commercial correspondence. Some more courses for medical representatives, stenographers, office secretaries, commercial art, photography, textile printing and designing are also proposed to be organized.

LITERACY CAMPAIGN

According to 1971 census, 51.65 per cent of the population of Jaipur was illiterate. In order to obliterate the stigma of illiteracy from the face of the city, a well organized literacy campaign was launched on 26 January 1976 under the sponsorship of the National Service Scheme of the University of Rajasthan and the guidance of Mr. R. K. Mishra, M. P. From a modest figure of 11, the number of literacy centres went up to 460 in the summer of 1976. Here nearly 35,000 men, women and children were taught the initial lessons of learning by an enthusiastic team of young university and college students. The ultimate objective of the literacy campaign is to make all the people of the city literate by 1978—the year to commemorate the 250th anniversary of the founding of Jaipur.

APPRAISAL

Problems and issues concerned with educational development in the city of Jaipur are not radically different from what they are in other parts of the country. In the absence of a systematic educational policy, the educational system of India has been in a constant state of flux, experimentation and diversification. It is hoped that with the greater involvement of the Central Government in the determination of educational priorities and framing of educational policy, the educational climate of the country as a whole will improve and the State administrative machinery will gear itself up to effect educational changes in conformity with the desired patterns of socio-economic and political development.

In the topsy-turvy priority pattern of the Indian educational system, the superstructure of higher education is standing on the feeble foundations of primary and secondary education. The municipal schools of Jaipur are generally considered to be the only institutions for the children belonging to poor families. These schools have scarcity of physical facilities and are managed by poorly paid teachers. Low standards of instruction permeate the whole environment of these schools, which not only demoralise the students and teachers but also promote undesirable stratification in the Indian society.

The problem of stratification has its more powerful sources in the colonial heritage of public school system. Undoubtedly, these schools have produced talented young men and women who today are holding top positions in the economic and administrative institutions of the country. But what is important is that a tacit support to these schools by the government and the elite of the society has made them grow at the cost of the performance and prestige of the non-public schools. The need is to bring these schools into the mainstream of the national life and not let them remain the privileged resorts of the rich and the super-rich. Admission to these schools should, therefore, be on the basis of merit and fees charged to students should be on the graded basis of their guardians' ability to pay. Government should compensate for the loss in income suffered by these schools in case this new policy of admissions is adopted.

It is ironical that the schools run by the Rajasthan Government enjoy less prestige than that enjoyed by private schools. This is contrary to the situation found in the States such as West Bengal, Bihar, Orissa and Tamil Nadu, where Government schools have enviable reputation for high standards of learning. It would be in the fitness of things if the State Government runs standard school throughout the State, and more particularly in the district centres. These could be run on the pattern of the Central Schools.

The gap left by the Government in the field of primary education has been filled, though inappropriately by a multitude of motley "English medium" schools dotting the lanes and localities of Jaipur. Run mostly by housewives who have spare time and an urge to earn money, these institutions, providing semblance of public schools, are money-spinning teaching shops, but which, ironically enough, have gained undeserved spurious status. The Government should curb the growth of these mushrooming schools. But this should be done only by the balancing act of opening a larger number of standard schools in the walled city as well as in the outlying areas.

At the primary education stage, balanced stress on the teaching of English, Hindi, Mathematics and Natural Sciences should be laid. Besides, there should be some schools at least with well maintained natural history museums, art galleries, herbariums and aquariums. Education is not confined to books. In fact, most of it is gained through a contact with the outside world of fantasy and excitement.

A continuation of the development of scientific attitude among students should be ensured at the secondary and higher secondary school levels. Here greater emphasis should be placed on scientific education rather than on humanities. This would require allocation of larger sums for the purchase of scientific equipments and the development of laboratories.

With the proposed introduction of 10+2+3 scheme of education, students will be able to enter professional institutions after graduating from schools. This will provide an opportunity to colleges to specialize in certain specified areas. It is desirable therefore to make the Masters degree sounder.

The University of Rajasthan has recently expanded its Institute of Correspondence Studies and strengthened correspondence programmes at the undergraduate and the post-graduate levels. Diploma courses have also been started in a professional area such as catering. What is required in such schemes is that there should be no compromise with the standards of lessons written for these courses.

Presently there is an increasing emphasis being laid on adult education and literacy programmes. The need is to provide further support to these schemes and ensure that rigorous follow-up action is taken in boosting literacy at least to the retention level.

Lastly, there is need for the leadership of the minority communities and underprivileged classes to persuade their community members to join the mainstream of educational development. Greatest need remains to promote female education. Of course, for such groups, the pressing requisite is to expand vocational educational facilities, which, in turn, will help the strengthening of their traditional occupations as also in ameliorating their economic status.

Health Services

Good health of the citizens manifests the good health of a city. Unfortunately, however, the city of Jaipur, on account of its being inundated with the problems of overcrowding, uncleanness and pollution, is far removed from the ideal state of a "healthy" city. This makes the task of the medical and health authorities challenging.

DISEASE PATTERN

In the matter of disease pattern, Jaipur presents the picture of a typical city in transition. It is afflicted with traditional diseases most common to developing countries, including malaria, typhoid, cholera, bacillary dysentery, amebiosis enteritis and other diarrhoeal diseases. Poverty and insanitation have further aggravated the situation. Slum localities crowded with underfed, undernourished and underweight children provide a heart-rending spectacle of the unbalanced urbanization of Jaipur— a city where great number of children are likely to be lost before they would even reach the tender age of ten.

Ironically, in a capital city like Jaipur, prosperity too has its victims. The growing number of cases of injuries resulting from industrial and road accidents, numerous modern diseases like cardiac disorders and cancer, and several ailments requiring specialized surgery highlight this point. With the change of life pattern of the city's inhabitants and the growing life span, degenerative and metabolic diseases associated with ageing, such as diabetes and arthritis have also been increasingly noticed.

MEDICAL SERVICES

The State Government provides medical and health services in Jaipur city through its various organizations, such as the Directorate of Medical and Health Services and the Directorate of Ayurvedic and Unani Medicines. The local Municipal Council, Santokba Hospital, the Red Cross Society and certain other private organizations also render medical and health services to the city population. In addition, the Employees' State Insurance Corporation, the Military Hospital, the Jail Hospital, the Police Hospital and the Railway Hospital also have provision for specific sections of population. As regards the

provision for specialized treatment, Jaipur has among others, a Psychiatric Centre, a T. B. and Chest Hospital and a Leprosy Hospital. However, most of the population is dependent upon the Government hospitals and dispensaries in the city, but more particularly on the SMS Hospital.

Table 9.1 presents the number of Government hospitals with their bed capacity and the number of patients treated during 1975.

TABLE 9.1
NUMBER OF GOVERNMENT HOSPITALS, THEIR BED CAPACITY AND
THE NUMBER OF PATIENTS TREATED IN 1975

S. No.	Name of the Hospital	Beds	Patients Treated in 1975	
			Indoor	Outdoor
1.	SMS Hospital	937	3,39,051	4,69,083
2.	Zanana Hospital	372	22,228	88,106
3.	TB & Chest Hospital	280	2,194	26,714
4.	Psychiatric Centre	280	82,322	44,172
5.	Infectious Diseases Hospital	40	1,343	5,346
6.	Police Hospital	10	N. A.	2,869
7.	Yogic and Research Centre	20	4,787	3,059
8.	Central Jail Hospital	36	33,527	48,657
9.	Leprosy Hospital	40	423	3,127
Total		2,015	4,85,875	6,91,133

Source : Directorate of Medical and Health, Government of Rajasthan.

The above table reveals that SMS Hospital and its attached Zanana Hospital treated 78 per cent of the total patients who visited Government hospitals in Jaipur during 1975. SMS Hospital has the departments of medicine, surgery, cardiology, orthopaedics, neurosurgery, ophthalmology, ENT, dentistry, dermatology, pathology, paediatrics, radiology and other branches. During the past few years, the hospital has expanded its specialized services and has set up units for urology, respiratory and allergy diseases, plastic surgery and cardiothoracic surgery. Besides, an isotop lab which facilitates diagnosis of diseases, and a cobalt unit for the treatment of cancer have also been functioning. The hospital also runs a blood bank and provides services in pathology and family planning. A notable achievement of the hospital is the setting up of a Rehabilitation Centre where amputees are provided with artificial limbs made of indigenous material which is cheap, durable and effective. With the assistance of a voluntary organization Mahaveer Viklang Sahayata Samiti—this centre has helped rehabilitate hundreds of persons who, alongwith their limbs, had lost hopes for a dignified living.

The Zanana Hospital generally deals with the cases of deliveries although some facilities of ante-natal and post-natal care are also available in the hospital. Besides, there functions a Well Baby Clinic which provides guidance to the parents for the healthy growth of their children. The Zanana Hospital is planned to be shifted from Chandpole area to a more open and spacious locale near SMS Hospital. This will facilitate better pooling of teaching and clinical facilities.

Besides the two major hospitals, there are specialized hospitals such as TB and Chest Hospital, Psychiatric Centre, Infectious Diseases Hospital and Leprosy Hospital. In addition, there is a Police Hospital and a Jail Hospital for serving restricted clientele.

The Government-run Yogic and Research Centre which operates in collaboration with the Naturopathy Hospital is an interesting phenomenon in the medical services of Jaipur city. There appears to be a growing faith among the people of Jaipur in the yogic way to overcome human debility and diseases. The centre has already gained national recognition for its achievements.

Government Dispensaries : In order to decentralize medical services and spatially distribute these appropriately, the Government operates dispensaries in various parts of the city. Being nearer to the people's residences, they are easily accessible to a large chunk of population, although for specialized treatments and indoor facilities, patients have to fall back upon the services of the specialists of SMS Hospital. The dispensaries are situated in almost all major colonies of the city. Besides, the Employees State Insurance Corporation also runs seven dispensaries in Jaipur.

Table 9.2 provides figures for patients treated in various Government dispensaries during 1975.

TABLE 9.2

PATIENTS TREATED IN GOVERNMENT DISPENSARIES IN JAIPUR DURING 1975

S.No.	Dispensaries	Patients Treated in 1975
1	2	3
1.	Sanganeri Gate	1,52,703
2.	Purani Basti	2,00,137
3.	Sardar Patel Marg	47,024
4.	Sireh Dyodhi	1,36,157
5.	Gandhi Nagar	1,00,942
6.	Motikatlā	1,29,150
7.	Topkhana Desh	1,66,016
8.	Banipark	31,783

1	2	3
9.	Adarsh Nagar	56,052
10.	Tilak Nagar	35,939
11.	Top Khana Hazuri	76,969
12.	Arjun Lal Sethi Nagar	N. A.
13.	Secretariat	19,545
14.	Raj Bhawan	N. A.
15.	Satya Yatan Ashram	N. A.
16.	T. B. Clinic	29,941
17.	7P. I. T. A. D.	1,406
18.	E. S. I. No. 1	53,595
19.	E. S. I. No. 2	1,59,259
20.	E. S. I. No. 3	1,15,436
21.	E. S. I. No. 4	1,61,259
22.	E. S. I. No. 5	40,684
23.	E. S. I. No. 6	69,752
24.	E. S. I. No. 7	N. A.

Source : Directorate of Medical and Health, Government of Rajasthan.

Maternity and Child Welfare Centres : The city has six Government maternity and child welfare centres, one each at Ramganj, Chaura Rasta, Purani Basti, Adarsh Nagar, Gandhi Nagar and Bani Park. These centres have expanded their activities recently and have contributed significantly in the family planning movement.

Table 9.3 provides figures of the patients treated in these centres during 1975.

TABLE 9.3
MATERNITY AND CHILD WELFARE CENTRES IN JAIPUR

S.No.	Place	Beds	Patients Treated in 1975	
			Indoor	Outdoor
1.	Ramganj	21	1,339	21,145
2.	Chaura Rasta	15	1,825	7,460
3.	Kamani Centre (Purani Basti)	11	N.A.	N.A.
4.	Adarsh Nagar	12	2,816	N.A.
5.	Gandhi Nagar	6	424	6,121
6.	Bani Park	6	N.A.	3,355

Source : Directorate of Medical & Health, Government of Rajasthan.

Innoculation : Arrangements for vaccination as preventive measures for polio, cholera and small pox are made by the Chief Medical and Health Officer, Jaipur Municipal Council and the Red Cross Society. Vaccination against small pox and cholera are administered by the Jaipur Municipal Council.

Table 9.4 gives details of the small pox and cholera vaccination administered in the city from 1971 to 1975.

TABLE 9.4
SMALL POX AND CHOLERA VACCINATION IN JAIPUR : 1971-75

Year	Small Pox	Cholera
1971	11,758	6,403
1972	49,592	7,618
1973	52,603	2,967
1974	57,399	6,404
1975	68,296	4,670

Source : Jaipur Municipal Council.

It is clear from the above table that although the number of cholera vaccinations has been fluctuating over the years, that of small pox has been constantly on the increase. In fact, small pox vaccination has registered a six-fold increase during the five-year period, 1971 to 1975.

PRIVATE MEDICAL HOSPITALS AND CLINICS

Efforts made by the Government cannot be adequate in the sphere of health services. Over the years many private clinics have mushroomed in the city. Special mention must be made of the services rendered by a few of these.

Rajasthan Redcross Society : A branch of the Indian Redcross Society, the Rajasthan Redcross at Jaipur provides clinical facilities for x-ray, pathological investigations, E.C.G., routine and complicated deliveries, general surgery, ophthalmic services, dentistry and immunisation. The society administers polio and other vaccines to children and also renders family planning services. The society employs on a contract or part time basis the services of senior retired specialists. In all it utilizes the services of 23 doctors. The society has a limited capacity of 13 beds for the use of indoor patients. In 1975, it treated 1200 indoor patients and 6800 outdoor patients.

Santokba Durlabhji Memorial Hospital : The Santokaba Hospital is a general hospital where the facilities of x-ray, physiotherapy, ECG, laboratory and blood-bank are available. Sprawled over a huge complex, the hospital is equipped with 172 beds and modern instruments. With 31 doctors on its staff the hospital renders services in major areas of medical care. However, in resources and staff-strength it cannot match the Government S.M.S. Hospital. In 1975, the Santokaba Hospital treated 3,879 indoor patients and 45,740 outdoor patients, which together comes to only 6.2 per cent of the patients treated at SMS Hospital in the same period.

Amar Jain Relief Society : Set up in 1961 the Amar Jain Relief Society has gradually expanded into a full-fledged hospital. At present there are seven doctors working in the hospital. The total bed capacity is 35. X-ray and laboratory facilities are also to be provided at the hospital in the near future.

An important contribution of these polyclinics has been that services of retired specialists in different branches of medicine are being utilized to the best advantage of the populace who can now consult these specialists at nominal charges.

Besides the polyclinics, the city of Jaipur has scores of registered private practitioners whose establishments are inundated with queueing patients seeking special attention of their doctors as also wanting to save their precious time.

AYURVEDIC AND UNANI SYSTEMS OF MEDICINE

In spite of the popularity of allopathic system of medicine the indigenous treatment by Ayurved still has its grip over a multitude of people. The Government Ayurvedic College—formerly a part of the Sanskrit College—is the oldest among the medical colleges in the city. The activities of the college are three-fold : academic, clinical and research.

At present there are three Ayurvedic hospitals and 11 dispensaries in the city. The hospitals are Surajmal Bambaiwala Hospital, Dhanvantari Hospital and Pahadganj Hospital. Table 9.5 gives details of the patients treated in Ayurvedic dispensaries in 1975-76. In addition to these, there are four Ayurvedic dispensaries receiving grants from the Government. The dispensaries at Chandpole and Pahadganj also have arrangements for Unani system of medicine.

TABLE 9.5
NUMBER OF PATIENTS IN THE GOVERNMENT AYURVEDIC HOSPITALS AND
DISPENSARIES IN JAIPUR : 1975-76

S. No.	Name	Patients treated in 1975-76
1.	Durgapura	11,635
2.	Brahmpuri	19,757
3.	Pravas Bhawan	31,998
4.	Bapu Nagar	29,303
5.	Adarsh Nagar	19,613
6.	Secretariat	51,350
7.	Topkhana Desh	93,077

Each dispensary is manned by one *vaidya*, but the hospitals have generally a larger number of *vaidyas*. For example Dhanwantri Aushdhalayaya has three *vaidyas* while Bambaiwala Hospital has four *vaidyas*.

As a system of medicine, Ayurved has been found ideal for the treatment of diseases related to the digestive system, artheritis, rheumatism, paralysis and several chronic diseases.

HOMEOPATHIC SYSTEM OF MEDICINE

The homeopathic system of medicine, founded by Samuel Hahnemann (1755-1843), was first introduced to Jaipur in 1875 when Dr. Rajendra Lal Dutta of Bengal came to the city at the special invitation of the then Maharaja of Jaipur, S. Madho Singh. Since then this branch of medicine has remained increasingly popular with the people of Jaipur. Notably, however, before the integration of Rajasthan there were only four to five homeopaths in the city.

In 1956-57, a branch of All India Homeopathic Medical Association was set up in Jaipur. This helped in creating greater interest in the homeopathic system. In 1958 Hahnemann Homeo Mandiram was established by Dr. S.K. Gaur with the objective of disseminating organized education to those interested in inducting themselves into Hahnemannian homeopathy. This institution, based on the Gurukul pattern, provided free education and prepared its students for a two-year diploma in homeopathy. This institution alone has produced about 280 graduates in homeopathy. In 1965, Rajasthan Homeopathic Medical College and Hospital was set up which is now affiliated with the U.P. Homeopathic Board of Lucknow. This institution prepares students for a four-year diploma course which leads to the degree of Bachelor of Medicine and Surgery.

In order to regulate the practice of homeopathy in Rajasthan and to promote its planned development, the Government created a new organization, viz., Rajasthan Board of Homeopathy. The Board registers practising homeopaths and prescribes qualifications for such registrations. In Jaipur the number of registered homeopaths is around 600, while the figure for the whole State is about 2500. It is noteworthy that in Jaipur, number of whole-time homeopaths is only about 50, while the rest are only part-time practitioners. Besides, there are 16 charitable homeopathic dispensaries in the city, one of which is run by the Ayurveda Department of the Government of Rajasthan. Other dispensaries include those run by the Rajasthan Homeopathic Medical College, the University of Rajasthan, Rajasthan State Electricity Board and Manav Hitkari Sangh.

Although homeopathy has been used for the treatment of a number of diseases it has been found to be more effective for dermatitis, glandular diseases and "undefined" diseases which can only be diagnosed through symptomology.

APPRAISAL

Since the declaration of Emergency, medical and health services in the city have shot into prominence. The Government appears to be more liberal

towards the city hospitals in matter of providing financial grants and other facilities. The cleanliness campaign in the hospitals has swept off the age-long attitude of inertia and indifference; today the city hospitals provide a more pleasant sight and a far greater congenial environment for recuperation.

The SMS Hospital has gained in stature by starting new units of physical rehabilitation, urology, cardiothoracic surgery and cobalt, but these efforts need to be buttressed by providing increasing support to these units for their efficient functioning. The hospital should further develop its cancer wing and also set up an intensive care unit for cardiac patients. Besides, the casualty or tramatology units of the hospital should be expanded and modernized. A capital city such as Jaipur should organize efforts in this direction on a war footing.

Although the meals being served to the patients have improved in quality and the drug availability to poor persons has become easier, these efforts need further support.

The city Zanana Hospital should act as an Institute of Maternal and Child Health and thus expand its activities accordingly. Besides providing facilities for intensive ante-natal and post-natal care it should increase its services in the field of paediatrics and child care. The Maternity and Child Welfare Centres in the city should also act as prototypes of such an institute and work as supportive systems to the Zanana Hospital. Growth of these centres can mitigate unnecessary burden on the main hospital.

The Psychiatric Centre attached to the SMS Hospital needs considerable expansion in matters of men, resources and space. A larger number of specialists adept in the field of psychotherapy should be appointed in the centre in order to make psychotherapy easily available to the common man.

The local health dispensaries spread throughout the city should be further strengthened through additional manpower and opening of new specialized services. These dispensaries should act as health centres for the populace of the area and concentrate on providing preventive medicine. It is essential that people's faith in these dispensaries should increase. Only then the overcrowding in the SMS Hospital could be lessened. The dispensaries should refer cases requiring specialists' attentions to the SMS Hospital. A closer collaboration between the major city hospital and its subsidiary units is a pre-requisite to a balanced growth of medical facilities in the city. Accordingly the senior specialists of SMS Hospital, at least on their free days, should be available to these dispensaries. Importantly, the dispensaries can also be utilized for the training of medical undergraduates.

In the city Leporsy Hospital, the turnover of patients should be made faster. Greater attention needs to be paid to acute cases and less to the

chronic and disability cases. Certainly, the latter type of cases can also be taken up, once the capacity of the Leprosy Hospital increases.

In addition, the hospital should focus its attention on the task of rehabilitating the patients who have undergone treatment for leprosy.

The Central Jail Hospital in Jaipur should increase its manpower, and employ more specialists in order to run additional specialized services and also have arrangements for the continual checking up of the health of the inmates.

With the increase in the facilities to be provided to the patients and the restructuring of medical services, the question of attitudinal change of the doctors and the nursing staff requires utmost attention. Training of medical and health personnel for the enhancement of their professional skills and for increasing their commitment to ethical values so very essential in a missionary profession such as the medical cannot be exaggerated.

Ayurveda : With the setting up of All India Ayurveda Institute, Jaipur has become the most important centre for Ayurvedic studies and Ayurvedic medicine. However, a strong apex can stand only on a strong base. What needs to be done is to improve the financial, material and manpower resource position of the Ayurvedic dispensaries and hospitals in Jaipur. Pay scales and service conditions of *vaidyas* need revision in order to attract bright persons to this traditional Indian profession. Manufacturing of medicines also requires a change of techniques; Ayurvedic medicine in the form of tablets, capsules and crystals would be more palatable to the patients. Lastly, the proposed Ayurveda Granth Academy with its herbarium and pharmacy should be given strongest support by the Government.

The Homeopathic System : Since the inception of the Board of Homeopathic Medicine, there has been a rationalization of registration procedure for the practitioners of homeopathy. However the Board needs to expand its activities in the field of homeopathic education. The solitary homeopathic college of the city is affiliated to an institution outside Rajasthan. The Board should therefore, design a comprehensive scheme of development of homeopathic education in the State, draft syllabi on modern lines, encourage the growth of greater number of homeopathic colleges, recruit qualified and experienced teachers, and conduct examinations on sound lines. The function of supervising homeopathic colleges and the dispensaries and the task of expanding Government homeopathic facilities should be entrusted to a separate organization such as a Directorate of Homeopathic Medicine.

Looking to the growing interest of people of Jaipur in homeopathy, it might be desirable to open an 'A' class hospital in the city with at least 50 beds and modern equipments.

The existing Homeopathic College needs to further develop its research wing. Vigorous research relating to diseases which are peculiar to the people of Jaipur needs to be undertaken. Besides, a well equipped library should become an integral part of the college.

The low cost of homeopathic medicine makes the homeopathic system more acceptable and appealing to the poor sections of the society. The Government should encourage setting up of one homeopathic dispensary in each *katchi basti* of Jaipur. These dispensaries even if not Government-run, can at least be Government-aided.

It would also be worthwhile for the Government to reimburse the cost of homeopathic medicine used by its employees and their families. For this purpose, selected homeopaths could be recognized by the Government.

Other Areas : Greater awareness of health hazards and of the cannons of healthy living among the inhabitants of the city is a pre-requisite to the journey of Jaipur towards a state of reasonable fitness. Health education through mass media and personal contact can create tremendous consciousness among the people towards their role as individuals and as members of a community. Intensive efforts need to be made in this direction by the Directorate of Medical and Health and local authorities with the co-operation of the Department of Preventive and Social Medicine of the SMS Medical College. In this context, greater propagation of nature cure and yoga should also be undertaken.

School-going children should get nutritive food and be subjected to continuous compulsory medical check-up. The campaign against food adulteration which has been adequately successful recently, needs to be provided a continuing base. Associations of housewives in various localities should take upon on themselves the task of spreading consciousness about nutritive food and protection against food adulteration. Increasing number of voluntary agencies should be associated with the management of health services. It is a pity that this aspect of city life has remained grossly overlooked.

It may be pertinent to note that the Master Plan of Jaipur has made some recommendations regarding medical and health services. One health centre covering two acres of land and providing indoor medical facilities has been proposed in order to serve a population of 30,000 to 40,000 persons. Further, the setting up of two new general hospitals has been recommended—one near the sub-city centre and the other near Jhotwara District Centre. Each of the new hospitals constructed in 48 to 50 acres of land will have 1000 to 1500 beds. Eevn this appears to be less than what would be required to meet the optimum levels of medical services in a metropolis like Jaipur.

The next chapter on environmental protection will deal with the impact of pollution on the health of the people of Jaipur.

Environmental Protection

The generous nature provided human beings with a healthy environment. But the increasing urbanization and industrialization have brought with them the hazards of pollution. With the advancement of science and technology, material affluence gained prime importance and the laws of nature were mercilessly violated. All this has resulted in severe ecological imbalances throughout the globe. The multitudinous vehicles emitting gas, endless chimneys of factories belching smoke, thousands of industrial units burdening the earth with waste effluents and the unceasing cacophany produced by countless objects make the urban settlements subjected to poly-faceted pollution. Today, air is smothered with the toxic smoke of industries, greenery is replaced by spacious concrete mansions and the once peaceful environment has been shattered by the din of city life.

The following analysis is designed to briefly refer to the ramifications of major facets of environmental pollution in the particular context of the city of Jaipur.

AIR POLLUTION

Rapid growth of industries and faster means of transport have contributed chiefly to air pollution. Smoke and gases emitted from the industrial units and from vehicles cast a pall of smoke in the metropolitan centres. The major polluting industries are chemical smelting plants, cement, brick making refineries and thermal power plants. Air is impurified by the incomplete combustion of fossil fuels which discharge carbon monoxide, carbon particles and sulphur dioxide. The contaminated air adversely affects the human respiratory system, vegetation, buildings and materials. Thermal pollution spoils the quality of ambient air and makes it unduly warm which reduces the working efficiency of human beings. Air imbued with acidic pollutants also corrodes buildings and metal equipments. It is important that disposal of solid waste by open incineration method must be prevented. Further, where solid waste is disposed off by composting, it must be covered with a superficial layer of soil to prevent obnoxious smell and fly breeding.

The recent tree-plantation campaign supported by the Government is bound to prove eufunctional for the purification of the environment. Developing a larger number of green belts around the city should further be on the top of the agenda of the State and the city authorities. However, continuous protection of saplings and nurturing of plants is a more difficult task in the whole process. It requires commitment of the populace to the cause of environmental protection.

Vehicles : The maddening craze for owning vehicles in the urban centres has caused the worsening of air pollution. Over the years there has been a steady rise in the number of vehicles in the city of Jaipur. Besides emitting pollutant gases these vehicles have considerably added to the noise pollution. A glance at the number of vehicles registered from 1970 to 1975 will bear out the fact that vehicular traffic has increased with the growth of urbanization in the city.

TABLE 10.1
NUMBER OF VEHICLES REGISTERED IN JAIPUR : 1970 to 1975

Year	No. of Vehicles	Increase
1970	27,589	—
1971	31,512	3,923
1972	35,359	3,847
1973	39,966	4,607
1974	44,722	4,756
1975	49,855	5,133

Source : Office of the Transport Commissioner, Government of Rajasthan, Jaipur.

To minimise gaseous emission from automobiles, plying of heavy traffic on the city roads must be minimised. Already the new vehicles legislation has prescribed for the manufacturers of vehicles to put devices in the machinery which would reduce smoke exhaustion. This might help reduce the quantum of gaseous emission.

Industries : Unlike several other metropolitan areas which are facing the acute problem of air pollution through industries, Jaipur has not confronted, at least until present, a serious threat of this kind. The city, which is not primarily an industrial centre, has only four industrial areas located on its periphery. These are Sudarshanpura, Vishwakarma, Jhotwara and Malviya industrial areas. In addition, there is one industrial estate in Jaipur South. Jaipur Metals and Electricals Ltd. and National Engineering Industry are among the major industrial units in Jaipur. A survey was recently conducted to find out the effluents of these industries. Its findings revealed that the effluent of Jaipur Metals is highly toxic and rich in cyanide (27 mgs.). The

effluents of National Engineering Industries contains considerable quantities of phenols, oil and grease. There are a large number of chemical industries in the city but since they are spread out in a wide area, their polluting effect is minimized. Nevertheless it is advisable that future industrial growth should be regulated to protect the urban environment. Already the wind flowing into the city from the south western direction and passing through the smoky industrial area of 22 Godam is a constant source of pollution. The Government policy should be to effect a proper spatial distribution of industries in such a manner that new industrial areas may develop away from the population centres.

A brief reference may be made to the stone quarry industry concentrated at the foot of the Jhalana doongar. The growing construction activity in Jaipur has caused the expansion of this industry. In the quarrying process, millions of dust particles are inhaled by the labourers. These particles cause bronchial disorders and may eventually lead to asthma. It would be desirable, therefore, to devise certain protective instruments which could be used by workers while they are doing the quarrying work. At least wearing a mask by the workers should be made obligatory. Besides water scrubbers could be used wherever possible so that the dust particles could be precipitated at the source itself.

Fuel : All kinds of fuels when burnt pollute the air. Paradoxically, however, they are indispensable for automobiles, industries and household purposes. Consumption of fossil fuel is a universal phenomenon and this is in fact more harmful than the pollutants from the industries located in the outlying areas of the city. Use of fossil fuel is gradually on an increase. Average consumption of fossil oil in Jaipur for a period of 9 months is depicted in the table 10.2.

TABLE 10.2
AVERAGE CONSUMPTION OF FOSSIL OIL
FROM JULY 1975 TO MARCH 1976

Items	Consumption
1. Vehicles	
Light	106 K. L./M
Heavy	270 K. L./M
2. Industry	1050 K. L./M
3. Household Purpose	
Natural Gas	198 metric tons /M
Kerosene Oil	977 K. L./M

Source : Indrapal and Madhu Mishra, "Jaipur : A Study in Environmental Pollution" (Jaipur : Department of Geography, University of Rajasthan, 1976).

WATER POLLUTION

The Jaipur water used for drinking purposes cannot be called purely filtered in the true sense of the word. The impurified water is a source of epidemics such as cholera, hepatitis, dysentery and other water-borne diseases. The city of Jaipur is having a large number of people suffering from these diseases. However the most common complaint is the susceptibility to develop worms—cause being the inadequately filtered water. Amanishah ka Nallah and Ramgarh Bandh are the two main sources of water supply in Jaipur. It is suspected that Amanishah ka Nallah has become a source of water pollution as most of the industries throw their effluents there. The Government of Rajasthan has recently set up a Board for the Prevention of Water Pollution which will make studies concerning the sources of water pollution and suggest remedial measures. Already it has started investigating the pollutants of industries and has asked several industries to treat their waste sludge.

NOISE POLLUTION

The noisy vehicles plying throughout the day on the busy roads of Jaipur, the nights disturbed by the constant moving of inter-State goods carriers, the irresistible temptation of the vehicle drivers to honk their deafening horns, the leaking silencers of two-wheelers and three-wheelers, the sonorous noise of film music enveloping the atmosphere of city parks where money-spinning exhibitions and *melas* are organized, and the shrill noise of radios from every second house in a lane have made the city of Jaipur a centre of vociferous clattering and unbearable cacophany.

One can expect that the inevitable noise coming from the Pannigaron ka Rasta and Thatheron ka Rasta will continue for the time being. But it would be more appropriate to shift these industries to fringe areas.

It would also be advisable to restrict heavy vehicular traffic in the densely populated colonies.

Since the declaration of Emergency, the District Administration of Jaipur has taken effective steps to check avoidable noise pollution, but it appears that people's faith in expressing their inner restlessness by shattering the peace of their own environment has still not dwindled. There are no substitutes to the development of civic consciousness.

LAND POLLUTION

The earth has been ceaselessly burdened with polluting substances. The haphazard constructions, crowded multi-storeyed buildings, traffic congestions, insanitary disposal of sewage and the paucity of green belts have played a major part in land erosion and land pollution. Though air and water pollution is not so acute in Jaipur, land pollution has begun to cast its shadows.

The problem gains more serious proportions on account of the fact that the city has no adequate sewage disposal system. Resultantly, heaps of garbage and liquid waste find a convenient place in the city lanes. The Jaipur Municipal Council has to dispose off approximately three pounds of refuse and an equal amount of sludge per capita per day. Thus Jaipur having a population of approximately eight lacs is faced with the problem of disposing off everyday over a thousand tons of refuse and above a thousand tons of liquid sludge. Presently, there are five garbage collecting depots where the waste material is converted into manures. It has been found that the use of manures made from the garbage adversely affects the growing vegetation, thus ultimately becoming a health hazard. The two *ganda nallahs* or main gutters in the city also serve as the dumping ground for waste material. These *nallahs* not only present an unpleasant sight but also pollute the adjoining areas by their bad odour.

In the wake of the recent cleanliness campaign, considerable work has been done to mitigate uncleanness. Installation of a mechanical compost plant and laying of new sewer lines will further ameliorate the conditions of cleanliness.

A CO-ORDINATED APPROACH

Since the problem of environmental pollution is multifaceted, it requires trans-disciplinary rigorous analysis and an inter-organizational approach to problem-solving. Looking to the necessity of top-level co-ordination in this sphere, a high powered board for environmental protection under the chairmanship of the Chief Minister of the State has been set up. It can be hoped that with the help of this agency, concerted and systematic efforts will be made to evolve long-range policies pertaining to abating pollution and concrete action taken for the effective implementation of the policy thus framed.

THE CLEANLINESS CAMPAIGN

Being subjected to land pollution for a long time, the city of Jaipur, particularly the walled city, is presently facing an aggravated problem of untidiness. Wide roads, pink buildings, splendid monuments and magnificent fountains only manifest the exalted exterior of the city. The "other city" which embodies itself in crowded and dirty lanes and bylanes within the walled structures causes nightmares to Jaipurophiles.

The teeming population, paucity of accommodation and absence of sanitary conditions capped by people's indifference to their own environment have made uncleanness an unpleasant feature of the city of Jaipur. The aesthetic architecture of the city is marred by the ugly sights of heaps of garbage, dumps of waste material, and the loitering stray cattle.

Before the dream of Jai Singh could turn into a townplanner's nightmare, the Emergency came. There could not have been a greater boon for the city of Jaipur than the declaration of 1975-76 as the Year of Cleanliness. Thus the massive cleanliness campaign was initiated.

THE ROLE OF THE MUNICIPAL COUNCIL

The Jaipur Municipal Council started the campaign with great enthusiasm and aplomb. Besides, several other Governmental authorities and voluntary organizations started rendering valuable assistance in this campaign. With the launching of the cleanliness drive the Municipal Council has been allocated funds and infrastructure to undertake the gigantic task of cleanliness. The Union Government also allocated funds to the Council for the purchase of more wagons and equipments needed for cleaning the city. In order to meet the manpower scarcity in the cleanliness campaign, it has been decided that in case Harijans are not available for the task, services of non-Harijans could also be utilized. Additional staff is being recruited for this purpose. As a result, night shifts of cleanliness workers have also been planned. Besides, in place of the old practice of having one single holiday for all the workers, it has been decided that the workers will be given holidays by turns so that there is no break in the cleanliness campaign.

GARBAGE DISPOSAL

The campaign triggered off with the process of removing garbage from the main markets, streets and other localities. The heaps of dirt, which for long had accumulated over the roads, were removed. New dustbins were bought and placed at the main roads. Within the walled city each *chowkri* was furnished with twenty garbage depots where the carts could unload garbage carried by them from various sites. Selection of dumping grounds still remains a problem. Usually what happens is that the dirt removed from one place, instead of being taken outside the city, is dumped into a nearby open space. Such dumping grounds exist in the walled city as well as in the outlying localities. Earlier, where the dustbins were placed they were not cleaned regularly. Consequently, heaps of dirt got littered around the dustbins. The situation is being rectified now. The problem of disposing off the waste material is likely to be solved with the installation of a mechanical compost plant at Jaipur. With the installation of the plant which will incur a cost of Rs. 45 lacs, the city garbage will be put to better use and the present problem of *ganda nallah* will be largely taken care of.

SEWAGE AND DRAINAGE

In the absence of a proper sewage system the roads of the city generally gave a filthy appearance. The old sewage lines laid in the walled city were choked, as over the years the population had multiplied and the old lines could not carry the increased amount of refuse. The dirty water

streamed on the roads, obstructing the easy movements of people and vehicles. Pools of water on the roads were polluting the nearby areas. To put an end to this unseemly situation a special drainage scheme has been proposed for the city of Jaipur. The scheme will be financed jointly by the Central Government, the State Government and Life Insurance Corporation. Under this scheme underground pipelines will be laid for drainage purposes. Notably, the city has been divided into two regions—north and south—for laying down the new sewerage lines. Under the Fifth Five Year Plan the work will be completed in the north part of the city with a cost of Rs. 100 crores. The old sewage lines and manholes are also being repaired. A sewerage machine has been purchased which will clean the existing sewerage lines.

OTHER AREAS

The *kachi* lanes in the city are being made *pucka* under the cleanliness campaign. Alongwith the *pucka* lanes there will be *pucka* drains constructed. Notably, the function of repairing of roads has now been transferred from the jurisdiction of the Public Works Department to that of the Jaipur Municipal Council.

The State Government has decided that all the lavatories in the walled city should have the flush system. In fact, the newly constructed houses will be allowed to have only the flush system. Implementation of this policy directive has already started.

The stray animals, which have been traffic hazards and perpetual sources of nuisance to the people, are being rounded up. By the beginning of October 1976 nearly a thousand stray animals had been caught by the municipal squads.

Although community consciousness for voluntary participation in the cleanliness campaign has been aroused, punitive measures are also being taken against those who violate the cleanliness rules. With the help of police, the district authorities have been able to take action against those who were found guilty of committing uncleanness. Now there will be mobile courts in the city which will give summary punishments to the violators of the law. Besides, a special cell has been created in the Municipal Council to register the complaints against the negligence of the staff in the cleanliness work.

It needs to be stressed that the real success of the campaign depends upon the co-operation of the people. At the start of the campaign it was proposed that there would be *mohulla* committees which would supervise the work done in their areas and give their reports to the concerned authorities. Efforts in this direction need to be speeded up.

The political leadership is engaged in the task of inspiring the formation of such organizations at a large scale. The creation of a Clean City Society is a case in point. It is only when the people are involved in keeping their surroundings neat and clean that a city can obliterate dirty patches from its face. Cosmetics can never be the proper substitutes for hygienic tidiness. For this, people need to be vigorously instructed about the nuances of sanitation and cleanliness. Negative habits of convenience on the part of the people should not be allowed to perpetuate. Community consciousness should be generated in all the citizens and this must persist even after the time-bound cleanliness campaigns are over. Cleanliness is one area where the micro actions have tremendous ramifications at the macro level.

COMMITTEE ON URBAN WASTE

In its report, submitted in December 1975, the Government of India's Committee on Urban Waste, headed by Shri B. Sivaraman made certain important recommendations. A few of these may be referred to on the assumption that they would be relevant to the city of Jaipur as well.

1. The refuse bins may be made of special design and affixed at such places where the householders could conveniently deposit the refuse into them and also guard against their theft.
2. The services of public cleanliness, mechanised transportation and proper disposal of the urban waste should be put under unified control of a qualified public health engineer who should be supported by competent junior staff belonging to different disciplines.
3. Effective steps should be taken to do away with the practice of manual handling of night soil and its carriage as head-loads by sweepers as soon as possible.
4. Special attention should be paid to the areas like markets where bulk refuse is generated. By levying a special charge for collection, the system of collection and removal of refuse could be improved.
5. Sanitary methods of dumping should be adopted.
6. Incineration of wastes should be prohibited generally.
7. It should be ensured that carriage of refuse is done in covered vehicles.
8. Efforts to educate people about sanitation problems and advantages of cleanliness should be speeded up through mass media, educational institutions, voluntary agencies, seminars and periodical campaigns.

In Jaipur, much efforts have already been made in this direction since the middle of 1976. There is a pressing need for perseverance in this sphere.

9. The entire city should have an underground drainage system.

It is gratifying to note that Jaipur Municipal Council is already moving ahead in the matter of implementing most of the above suggestions and other constructive ideas to turn Jaipur into a clean city, a beautiful city and a healthy city.

The City Beautiful

Two hundred and fifty years of Jaipur's history, punctuated with periods of glory and periods of inertia have left an imprint on the structure of the city which was originally conceived of and designed by Sawai Jai Singh and Vidya-dhar. Unfortunately with the passage of time, the characteristic grandeur of Jaipur has withered away. The city's original architectural symmetry lay hidden beneath the unauthorized constructions, rickety *tharies*, flashy hoardings, footpath shops and filthy lanes. The pervasive uncleanness also contributed substantially in disfiguring the splendour of a beautiful city like Jaipur.

RESTORING THE ORIGINAL CHARM

Considering the gravity of the situation, a concerted attempt on the part of the various city authorities to check further deterioration of the city's beauty seemed essential. It was also imperative to act positively in order to restore the traditional magnificence of the pink city.

A special drive was initiated recently to beautify the city. In the first phase, a movement had begun of dismantling the unauthorized structures scattered throughout the city. This campaign undertaken by the Jaipur Municipal Council, the Urban Improvement Trust and the Traffic Police proved to be the pioneering attempt in the 'city beautiful' movement. The brisk campaign changed the city's face within a few days. It was reported that on the very first day of the campaign, 111 *tharies* were pulled down in the main bazaars. Within a month 800 *tharies* were removed and several unauthorized constructions were pulled down. Old maps were consulted to define and reimpose the original layout of the city. Consequently, the famous wide roads, which had been hidden under motley haphazard constructions, have attained their original form. The traditional architecture over the shops can be now observed after the huge signboards have been dismantled. It was also decided that all the shops situated within the old walled city would be pinkwashed and bear a uniform pattern of signboards crowned by traditional motifs and the design of *kangooras*. The shopkeepers welcomed the proposition and enthusiastically adorned their shops according to the declared policy. Within a few days one could see the shops having a harmonious

pattern of colour and sign boards. The shops attired in the pink colour have shimmering black letters on white background for their signboards. The traditional *kangooras* serve as the diadem of the shops. To rejuvenate the pink character of the city the buildings on the main roads were also given a pink wash. And today the walled city presents a panorama of pink facades.

While the walled city has had a pink wash, the M. I. Road has been beautified in a different colour. This central thoroughfare from Ajmeri Gate to Khasa Kothi has its shops coloured cream. Besides, there will be a uniform pattern of signboards on all the shops. The disfiguring publicity hoardings and other posters will be removed to check traffic congestion. There will be parking places in the sidelanes. Attractive lightings on both sides of the road will further add to the beauty of the market.

In the wake of the beautifying campaign the main roads have got rid of unbecoming sights. The Ajmeri Gate bus stand has been shifted to Saraswati Marg. The vegetable market near Chandpole Gate has been removed to the road going to Danta House under a huge tinshed. The Chandpole bus stand too has been provided a new location. Chhoti Chowpar's vegetable sellers have moved to Gangori Bazaar and the vegetable sellers formerly squatting on Johari Bazaar footpaths have been shifted to the side lanes. Since Ajmeri Gate and Sanganeri Gate are the most crowded entrances to the walled city, it has been decided to divert the traffic from these gates to the adjoining passes and thus facilitate the erection of fountains at these gates.

Beautifying Chowpars : The three *chowpars* in the walled city were the main attractions of the yore. But over the years they became the resorts of footpath vegetable sellers, fruit sellers, flower sellers, stray cattle and wayside shops. But now in the broad sweep of the beautifying campaign the *chowpars* have been rescued from unwarranted encroachments and their original charm is restored. They have been bedecked with beautiful jet fountains erected in their centres. These fountains have become objects of captivating interest, with the gushing water appearing colourful under the multi-coloured dazzling lights. People are flocking in great numbers to see the beautified *chowpars* which till recently lay neglected.

Once more the fountains have found their right places in the city. Outside the walled city, the founts at Gandhi Circle, Indira Circle, Rambagh Circle and at the circle near Krishi Bhawan serve as oasis on the busy thoroughfares inundated with multitudinous vehicles.

AESTHETICIZED TRADE CENTRES

The most noteworthy achievement of the beautifying campaign is the new Indira Market which is unique in many ways when compared to other markets.

This market, emerged in a record time of eight months, is designed to rehabilitate the dispossessed *thari* holders. The place where Indira Market is located was an ugly patch on the city surface where filth and dirt reigned in disdainful *ganda nallah* area. Today all this is gone and here stand four parallel rows of elegant pink shops with the beautiful traditional motifs inscribed on them. Built at a cost of Rs.65 lacs the market has 529 shops and also water drinking posts, public urinals and separate parking places, which no other market in the city has. Another highlight of the market is the underground electric wiring with the lamp posts hanging from over the roofs of the shops. Thus it is a smooth walk through the market with no electric poles and screaming vehicles obstructing the path. Aestheticism permeates the total structure of the market. Enclosed by the rows of shops in a patch of greenery stands a statue embodying the undaunted zeal of the *purusharthis*. A notable feature of the market is that while the old locality was demolished to give way to the new, the temples and mosques coming in the way were kept intact.

Another new market has been constructed at Rajamal ka Talab. In the vicinity of historical Jaisagar, Talkatora, Badal Mahal, Govind Devji's temple and the Nahargarh Fort, the new Janta Market would cater to the requirements of a large number of people in the adjoining areas. Stretching over an area of 10.2 acres the market has 409 shops constructed by the Rajasthan Housing Board. Out of these 409 shops, 250 were allotted to the local *thari* holders and the rest were auctioned. There are also provisions for a cinema hall, a park and a bank. The market area has been greened with the planting of several euclyptus trees. A new road will link this market with Gangori Bazaar.

Soon, Jaipur will have one more market in the periphery of the walled city. Stretching from Sanganeri Gate to Ghat Gate, the newly proposed Sanjay Market will add to the beauty of the old city. In addition to the three big markets, there is a plan for two mini markets at Ramlila Ground and Khajanewalon ka Rasta. The city has also evolved a new pattern of small shops, which can be seen at the corners of main squares. Conglomeration of the markets is bound to make walled city a congested area. Consequently there is likelihood of growing traffic congestions at several points. It may be mentioned that presently there are very few good market complexes in the outlying areas. For the balanced growth of the city it would be advisable to open markets in the areas outside the walled city.

Amber road is undergoing a facelift. It is being decked up appropriately as one of the main entrances into the city. Many unauthorized constructions have been pulled down to restore the original width of the road. This is a precursor to the main task of beautifying the road. A number of trees will

border the road, while the buildings on both sides are being painted in the traditional pink colour.

OF ROYALTY AND ROSES

The city palace complex cherishing the historical splendour will have some more assets. The garden near Govind Devji's temple has been acquired by the Government and there is a comprehensive plan to develop it into a major tourist attraction. This massive work is being undertaken by Jaipur Municipal Council with an estimated cost of Rs. five to seven lacs. The space between Govind Devji's temple will be developed into an ornamental garden along the lines of Vrindavan Garden of Mysore. It will be adorned with polychromatic fountains, channel fountains and waterfalls. The garden complex will also have a rose garden where the different varieties of roses will be displayed.

In addition, Badal Mahal, a historical palace, will be renovated as a picnic spot and as a tourist attraction. The adjoining *Talkatora* which presently is a reservoir of stinking water will be converted into a shimmering lake. It is interesting to note that the pleasure of boating, at present scarce in the city, can be sought in *Talkatora* in the near future. Nature around this place is bountiful and therefore will have its contribution in making the place idyllic.

Renovation of Vidyadhar ka Bag is also a great achievement of the 'city beautiful' campaign. For long it had remained neglected, but in a bid to revive the old splendour of the city as also to consecrate the memory of its builder—Vidyadhar—the garden was given a thorough facelift. The terraced garden intersected by the streaming water, and brilliantly lit by colourful lights is perched amidst the rugged hills which are enveloped in greenery in the rainy season. Now Vidyadhar ka Bag has become the most popular place for picnics and parties.

A JOY FOR EVER ?

In the wake of the beautifying campaign, the city has rejuvenated its pink character. Preparing to celebrate its 250th birthday, this glorious city has redecorated itself to fulfil its creator's dream. No more the city has to be ashamed of its unkempt profile. The steps taken in the beautifying campaign have undoubtedly restored the charm of yore. But what needs to be stressed is that the beautifying and cleanliness drives should be perpetuated continually. The achievements of the beautifying campaign should not wither away on account of indifference or negligence. Attention to the preservice of the city's beauty should be paid not only by the Governmental authorities but also by the people who form a part of it. The awakened civic consciousness alone will be able to protect the unique charm of this pink city and make it perdurable.

Recreation and Cultural Life

Tedium of busy city life will be unbearable if there were no cultural and recreational modes to lend fulfilment to human existence. Entangled in the hubub of urban life and overpowered by the tentacles of modern civilization, a common man has to seek solace as also nurture self-development through the available means of recreation. An urbanizing city such as Jaipur cannot ignore the need for recreational amenities as it is a *sine-qua-non* for a healthy living. The various academies, theatres, art galleries, exhibition-halls, cinema halls, clubs and the libraries epitomise the cultural life of any city. This is also true of Jaipur.

The growth of a city also presupposes the expansion of its recreational and cultural facilities. But in Jaipur these amenities have not developed according to the population needs. In this specific field the city of Jaipur is in a relatively backward state, where the people's pastime is spent in gossiping, listening to the common place film songs, reading the "twopenny" trash and watching the stereotyped movies. There are very few easily accesible alternatives of recreation for the commoners. A brief survey of the existing facilities for recreation will justify this statement.

RADIO AND TELEVISION

Possession of a radio-set or a transistor is no more a luxury but an urban necessity. Today, most of the houses in the city reverberate with radio music, as it remains among the cheapest and readily available means of entertainment. Most of the radio and transistor sets in the city remain tuned to Jaipur Radio Station, Vividh Bharti and to Sri Lanka Broadcasting Company. Film songs galore in the programs broadcast from these centres, a surfeit of which cannot be really called very good entertainment. The other variations are plays, skits, instrumental music and non-filmi songs. Very often the plays and skits broadcast bear excessive sentimental elements. The public continually fed with such stuff is likely to lapse into a dream world, quite remote from reality. Therefore, emphasis needs to be placed on a more realistic portrayal of rural and urban life; rich treasures of old as well as contemporary Indian literature should also be used to advantage in the radio programmes.

Presently, Jaipur does not have only television network, though, with the setting up of a T.V. factory we can expect several television sets to be bought by the public. Initially, programmes will be screened with the assistance of Delhi and Bombay T.V. stations.

CINEMA HALLS

Cinema is the most popular form of entertainment in the city as the cine-goers come from all the classes of society. In fact for most classes of the society cinema remains the only entertainment available at a reasonable cost. The first cinema hall, namely, Man Prakash, was constructed in 1932. Twelve years later, in 1944, another cinema hall, Ram Prakash, was built. Prior to this, Ram Prakash had been a theatre. The city had its third cinema hall—Polo Victory—in 1947. Since then seven more cinema halls have been erected. The existing number of ten cinema halls is inadequate to serve the entire population of the city. Going to see a picture on a holiday involves a tough struggle, and due to the limited seats in the halls, many people have to go back without getting the tickets despite scrambling for them.

Here, it is interesting to note that most of the cinema halls are located in the walled city. Though the residents of C-Scheme and Bani Park have easy access to the nearby cinema halls, people living in the external colonies have to cover a long distance to go to see a movie. Gandhi Nagar, Bajaj Nagar, Bapu Nagar, Janta Colony and Adarsh Nagar have no cinema halls at present. However, sites for two new movie theatres have been proposed in the new commercial complex of Jawahar Nagar. One more cinema hall is proposed to be erected in the vicinity of new Janta market.

The standard for estimating the number of cinema halls has been given by the Central Regional and Urban Planning Organization of the Government of India. It proposes one cinema hall (capacity 500 persons) for a population of 50,000 persons. In 1965, according to the City Survey Project, Jaipur had one cinema hall for the population of 69,688 persons. As of 1976, there were 81 persons per seat of a cinema hall, while the number of persons per cinema hall had risen to approximately 78,000. On the basis of the estimates proposed by the Central Regional and Urban Planning Organization, the city of Jaipur will require 18 cinema halls by the year 1991. Proper attention should be paid to the development of transport facilities and planning of the premises of these cinema halls. Efforts should also be made to scatter the cinema halls throughout the city so as to reduce the distance that any person has to travel to reach the cinema hall nearest to his house. The district authorities have recently issued some licenses for the construction of several new cinema houses. Notably, cinema should not only be regarded means of entertainment but also as a depiction of Indian culture. In the craze

for Hindi films the regional movies should not be ignored as they too have a considerable number of audience in the city.

CLUBS AND SPORTS

Clubs in Jaipur are popular with a selected group of well-to-do persons only. The well known clubs include Ashoka Club, Jai Club, Jaipur Club, Jaycee Club, Lions' Club and Rotary Club. These clubs provide facilities for indoor gameslike chess, carrom, bridge, table tennis, lawn tennis, badminton etc. Generally an annual fete is a regular feature of these clubs. Besides, there are clubs not so widely known, which are limited to a specific caste or colony. There are also many women's clubs in the city.

Golf, polo, swimming and squash facilities are also available at Rambagh Palace. Besides, sports facilities are available at the S. M. S. Stadium, Chougan, Railway Grounds and in schools, colleges and the University. However, a recent phenomenon is to form locality clubs, mostly membered by the teenage students who organize games and sports activities. Cricket remains most popular with these clubs. Indoor games such as carrom, cards, and chess are to be found in almost all the homes. These are popular means of whiling the time away. Watching sports and games is also a source of recreation for the sports loving public.

Jaipur has two stadiums, namely Chaugan Stadium in the walled city and Sawai Mansingh Stadium near Rambagh Circle. There are occasional cricket, hockey, basketball and table tennis matches. However, cricket remains the most popular game and the stadium is overcrowded when 'first class' matches are organized there. Unfortunately the opportunity to witness cricket matches comes only once in a blue moon. It is suggested that there should be organized more cricket matches during the "cricket season" and other sports events throughout the year.

A recent phenomenon in the sports activities of the city is the starting of women's cricket and *kabbadi* matches.

LIBRARIES

Libraries and reading rooms provide a creative use of one's leisure. In 1965 there were 26 public reading rooms and libraries in the cities. Many of these libraries were aided by the State and Central governments, while the others were established by the Maharaja of Jaipur and by the University of Rajasthan. The central library at the University of Rajasthan has among its prized possessions the books received in 1954 from Residency Library of Mount Abu. The collection comprises 8,000 documents dealing with socio-economic and political conditions of Rajasthan from 1870 to 1945,

It may be pointed out that presently in Jaipur, the number of libraries is inadequate and this limited number of libraries is not within the easy reach of the common man. The growing reading habit among the people calls for more libraries and reading rooms. It is suggested that each colony should have its own library. Besides, there can be mobile libraries which would circulate books and magazines to a wider circle of people at nominal charges. The reading material supplied should be of good standard and there should be a stern curb on the potboilers. It is also advisable to expand the Information Centre and open its branches in various parts of the city.

The sudden spurt in the number of general bookshops in the city is an indicator of the growing reading habits of the people. But again the type of literature in most demand does not speak very high of the people's taste.

ACADEMIES, THEATRES AND EXHIBITION HALLS

Jaipur has several associations and organizations in the city which are engaged in cultural activities. The leading organizations are Rajasthan Sangeet Natak Academy, Lalit Kala Academy, Shruti Mandal, Triveni, Moomal, Kala Sangam, and Trimurti. Here mention may also be made of the growing interest in modern drama. Following the lines of modern drama the talented directors and actors of the city have staged a series of plays, most of them experimenting with the new techniques of realistic drama. The theatre scene of the city caught momentum after the construction of the pink edifice of Ravindra Manch in 1962. Since then, Ravindra Manch has remained the most popular theatre for dramatic and other cultural performances. Besides, there are the recently renovated Rangmanch and a spacious open air theatre in the University campus. Some schools and colleges also possess theatre halls. However there is need for putting the University theatre to greater use.

However, the plays staged in the city theatres have a limited audience, generally drawn from the elite group of the society. The plays are not popular with the general public which generally likes to spend its money for films and other fun fares. Music programmes and cultural evenings are organized in the city from time to time. The city can take pride in presenting the vocalists and celebrities of music world through these programmes. Such occasions should be made more frequent and open to the general public. Usually the high rates of tickets dissuade a lot many person from witnessing these artistic performances.

Ravindra Manch also has an art gallery where painting and sculpture exhibitions are organized. The Information Centre of the city also serves as an exhibition centre. However, the need for more art galleries in the city is being

strongly felt. There are many new artists whose works should be displayed for the general public.

The other cultural activities in the city are occasional *kavi sammelans*, and *mushairas*. The yearly *Mahamurkh Sammelan* has become very popular over the years. Large crowds gather on the eve of Holi to witness the celebrated humorists and facetious persons from all over the country. The programme continues past midnight, enlivened by peals of laughter and lusty encore.

A new feature in the recreational life of the city is the organization of exhibitions and *melas* for long durations. Starting from the Crafts India 1972, the city has witnessed a series of exhibitions at Ram Niwas Garden and Ramlila Ground. There can be more such functions. These exhibitions are characterized by a multitude of shops, stuffed with popular wares, *chhat tharies* selling crispy and spicy dishes, scores of money spinning game shops and improvised dance theatres. A motley crowd of people flock to these exhibitions to siphon off the tedium of routine life, but they get disappointed by encountering the same old hackneyed pattern of empty "exhibitionism".

Cultural programmes organized by the University, colleges and schools also serve the purpose of recreation. Inter-college competitions in dance, drama, songs, debates and elocution are frequent phenomena in the city. For the last few years, *Ghumar* (a youth festival) has become an annual event in the city. Organized by the University and college students, the programme continues for four-five days, each day throbbing with multiple cultural events. Decked up in a festive look, the University campus attracts masses of people—students as well as non-students—to the cultural programme of *Ghumar*.

FESTIVALS AND MELAS

The cultural life of the city is best depicted during the festival time. Festivals and *melas* in the city are symbols of beauty and gaiety. A wave of rejoicing envelops the entire city. Specially for the women folk, these are the occasions of great merriment. Attired in gay colourful costumes and exquisite jewellery, the women sing and dance with the accompaniment of loud drum beating. The processions organized on these two festivals are carnivals of rhythmic folk dances, lilting melodies and costumes of beautiful hues. These pageants attract multitudes of people from neighbouring villages.

Holi, Diwali and Dussehra are other festivals of conviviality in the city. The city life throbs with celebrations on these occasions. The annual Ramlila before Dussehra provides gay entertainment for more than ten days besides perpetuating the glorious ancient tradition. The burning of the massive effigy of Ravana on Dussehra is the crowning event of Ramlila which attracts scores of people to the Ramlila Ground.

FUN FOR CHILDREN

The scarcity of creative and entertaining centres of recreation for the younger generation is a notable lacuna in the city life. Deprived of healthy recreational facilities the children of the city are forced to involve themselves in the hackneyed indoor games like cards and carrom and mundane outdoor games like marbles, hopscotch and rounder. Therefore, there is an urgent need for providing more recreational facilities to the children. There should be several children's parks having a variety of entertaining devices for the amusement of younger lot. Introduction of a children's train and the setting up of a mini Disneyland will prove to be sources of real bliss to the children.

It is interesting to note that for the last two years there have been painting competitions organized for the school children. These have now become regular features and quite popular among the school kids who participate enthusiastically in these events in large numbers. This appears to be a small step in the path of providing children with recreational opportunities. It is suggested that more competitions and functions should be organized on inter-school basis. To cultivate children's interest in animals there is a Wild Life Association in the city. It needs to be supported and activated further.

GARDENS, PARKS AND PLAYGROUNDS

Gardens, parks and playgrounds have been aptly called the 'lungs of the city', giving respite to the city dwellers from pollution, congestion and social tension. In several areas of the city there is a dearth of gardens, parks and playgrounds. Scarcity of water is perhaps one of the reasons for the dearth of well-maintained parks and gardens in the city. Ram Niwas Garden, constructed in 1868, still remains the only city-level garden. It stretches over a large area comprising many lawns, a zoo, a cricket ground, a football ground, a gymnasium and a theatre. The towering Ashoka trees and colourful flower-beds present an enchanting view. Though with the passage of time the garden has worn out its original character and the constant flow of traffic has polluted its fresh air, it still remains the favourite resort of the city dwellers, particularly in summer. The lawns are crowded at all hours of the day. The *chhat market* situated at the Scouts Headquarter ground is also one of the attractions of the place. The spacious grounds of the garden are also used for exhibitions and circus shows.

In the wake of the beautifying campaign in the city, it is proposed that an artificial lake and a jet fountain should be constructed within the garden premises. Table 12.1 lists the recreation facilities available in and around Ram Niwas Garden.

TABLE 12.1

A. LIST OF RECREATIONAL CENTRES OCCUPYING LAND IN RAM NIWAS GARDEN

1. Ravindra Manch
2. Union Football Ground
3. Jaipur Cricket Club
4. Ladies Club
5. College Garden
6. Children's Park (run by Child Welfare Society)
7. Albert Memorial Museum
8. Public Zoo
9. Chaat Market
10. Swimming Pool and Tennis Court (proposed)

B. LIST OF RECREATIONAL FACILITIES BORDERING ON THE NORTH SIDE OF RAM NIWAS GARDEN

1. Ram Lila Ground
 2. Soohna Kendra Exhibition Ground and Rangmanch
 3. Minerva Cinema
 4. Gem Cinema
 5. Prem Prakash Talkies
 6. Mayur Cinema
 7. Man Prakash Cinema
-

Sisodia Rani ka Bag and the new Vidyadhar ka Bag at Agra Road are the other gardens. But their distance from the city has made them picnic spots rather than regular haunts. Vidyadhar ka Bag, resplendent with spraying fountains and colourful lights was dedicated to the people by the Chief Minister of Rajasthan on 16 January, 1976.

The absence of parks and gardens is more acutely felt in the walled city where the people live in congested conditions, devoid of the pleasant sight of a park. The children in the absence of playgrounds play on the streets which obstructs the pathways and is also very risky. In most of the new colonies outside the walled city, land has been provided for parks and playgrounds, but very few of them have been properly developed. At the time the City Survey Project was undertaken in 1965, there were only 12 developed parks and playgrounds in the whole city (Table 12.2). It is interesting to note that all these parks and playgrounds were located outside the enclosed city.

TABLE 12.2
LOCALITY-WISE DISTRIBUTION OF PARKS AND PLAYGROUNDS
AND THEIR AREA IN 1965

Census Ward No.	Name of Locality	No. of Parks and Playgrounds	Area (in Acres)
9	Ram Niwas Garden and its adjoining localities	2	57.05
9	Adarsh Nagar	3	13.20
10	C-Scheme	1	2.30
10	Jalupura	2	0.75
10	Banipark	2	12.40
10	Displaced Persons Colony (Jhotwara Road)	1	0.13
10	Sindhi Colony (Banipark)	1	1.44
Total		12	87.27

Source : City Survey Project, University of Rajasthan, p. 504

Even After a span of twelve years the number of parks has not increased substantially. A number of new colonies have come up and nearly all of them have the space earmarked for the parks. But the task of development of these parks has been neglected and instead of flowers and grass growing here, heaps of dirt pile up at these sites.

Table 12.3 shows that there are 24 developed parks in the entire city and 10 more parks are to be developed soon.

Further, it may also be interesting to look at the presently existing parks and gardens in Jaipur from the point of view of their management (Table 12.4).

TABLE 12.3
NUMBER OF DEVELOPED PARKS IN THE CITY IN 1975

Name	Location
1	2
1. Gahdhi Bal Udyan	Tonk Road
2. Moti Park	Bapu Nagar
3. Satsang Bhawan Park	Bapu Nagar
4. ESI Dispensary Park	Bapu Nagar
5. Gandhi Circle	Near Kanoria College
6. Shivaji Park	Tilak Nagar
7. Mehta Park	Moti Dungari Road
8. Janta Colony Park	Janta Colony
9. Sethi Colony Park	Sethi Colony

1	2
10. Laxmi Narainpuri Park	Laxmi Narainpuri
11. Ghatgate St. Angela's Park	Ghatgate
12. Jorawar Singh Park	Amber Road
13. Kamla Nehru Park	Kamla Nehru Market
14. Park House Udyan	M. I. Road
15. Kailash Park	Bani Park
16. Labour Colony Park	Jhotwara Road
17. Mahatma Gandhi Sindhi Colony Udyan	Sindhi Colony
18. Tilak Nagar Shopping Centre Park	Tilak Nagar
19. Terrace Garden	Bajaj Nagar, near O.T.S.
20. Char Darwaja Park	Char Darwaja
21. Janta Store Park	Bapu Nagar
22. J. K. Circle	Rambagh Road
23. Residency Circle	Residency

PARKS TO BE DEVELOPED

1. Anandpuri Park	Anandpuri
2. Laldungari Shamsan Park	Laldungari
3. Major Shaitansingh Park	Major Shaitansingh Colony
4. Hida ki Mori Park	Hida ki Mori
5. Housing Board Quarters Park	Nahari ka Naka
6. Harijan Quarters Park	Nahari ka Naka
7. Bajaj Nagar Udyan	Bajaj Nagar
8. Amritpuri Udyan	Bajaj Nagar
9. Udyan Basant Marg	Bani Park
10. Janta Colony Circle Park	Janta Colony

Source : Urban Improvement Trust, Jaipur.

TABLE 12.4

GARDENS AND PARKS IN JAIPUR ACCORDING TO MANAGEMENT

A. LAID OUT AND MAINTAINED BY HOUSING BOARD, JAIPUR

S No.	Name of Colony	No. of Parks	Developed	Undeveloped
1.	Jawahar Nagar	12	8	4
2.	Nahari ka Naka	8	3	5
3.	Lal Kothi	1	—	1
Total		21	11	10

B. LAID OUT AND MAINTAINED BY JAIPUR MUNICIPAL COUNCIL

1. Bairwa Basti Park (Chowkri Topkhana Hazuri)
2. Telipada Rasta Patwel Park (Chowkri Vishesarji)
3. Mahavir Park (Chowkri Modikhana)
4. Amber Road Park (Chowkri Gangapole)

C. MAINTAINED BY GARDENS (P.W.D) DEPARTMENT

1. Ram Niwas Gardens
2. Statue Circle
3. Dalaram Garden, Amber
4. Mohan Bari, Amber
5. Jai Mandir, Amber
6. Jai Singh Circle
7. Secretariat Gardens
8. Government Hostle Gardens
9. Observatory Garden
10. Raj Niwas Garden
11. High Court Building
Garden
12. Collectorate Garden
13. Assembly Hall Garden
14. Gandhi Nagar Club
15. Shyam Bag Nursery, Amber

D. MAINTAINED BY EXECUTIVE ENGINEER, P.W.D., B&R., DISTRICT. JAIPUR

1. Sisodia Rani Garden
2. Jaleb Chowk Garden
3. Rambagh Garden
4. Vidyadhar ka Bag

E. MAINTAINED BY URBAN IMPROVEMENT TRUST

1. Nehru Balodyan, Tonk Road
2. Satsang Bhawan, Bapu Nagar
3. Janta Store Park, Bapu Nagar
4. E.S.I. Park, Bapu Nagar
5. Gandhi Circle, S.M.S. Highway
6. Terrace Garden, Bajaj Nagar
7. Office Building Park, U.I.T. Office.
8. Shivaji Park, Tilak Nagar
9. Mehta Park, Tilak Nagar
10. Tilak Park, Tilak Nagar
11. Tilak Nagar Shopping Centre, Tilak Nagar
12. Janta Colony Park, Janta Colony
13. Sethi Colony Park, Sethi Colony
14. Saint Angela Park, Ghat Gate
15. Jorawar Singh Park, Amber Road
16. Char Darwaja Park, Char Darwaja
17. Laxmi Narayanpuri Park, Laxmi Narayanpuri
18. Kailash Park, Bani Park Colony
19. Sindhi Colony Park, Bani Park Colony
20. Labour Colony Park, Bani Park
21. Park House Park, Near Polo Victory Cinema
22. J. K. Circle, Near Krishi Bhawan
23. Residential Circle, Residency
24. Moti Park, Bapu Nagar

F. PROPOSED DEVELOPMENT IN OLD GARDENS

1.	Jhalana Palace Gardens	}	Not maintained by any agency
2.	Nahargarh Fort		
3.	Gaitor Gardens	}	Archaeology & Museums Department
4.	Maharani ki Chatriyan, Gaitor		
5.	Bahermal ki Chatriyan Amber Road		
6.	Sagar Mahal		
7.	Hawa Mahal Garden		

Source : Department of Public Works, Government of Rajasthan.

RECOMMENDATIONS OF THE MASTER PLAN

The Master Plan has suggested a systematic and rational distribution of recreational facilities at different levels of hierarchy, i.e., local level, district level, city level and regional level.

A district park shall cover an area of 10 to 15 acres, serving a population of one to two lacs. The construction of some more parks has also been proposed near the T. B. Sanitorium by the side of Amani Shah ka Nala and around Moti Dungari.

For residential areas with low density, open spaces of about one acre to two acres have been recommended. These open spaces should serve a population of about one thousand. This is an accepted standard but it will vary for the densely populated areas. The area and location of parks in these regions will have to be decided while chalking out the various sector plans.

In addition to the existing city level park, namely Ram Niwas Garden three more city and regional parks have been proposed in the Master Plan. These parks are:

1.	Jalmahal Park	200 acres
2.	Galta Park	50 acres
3.	Jhalana Park	1,200 acres

Encompassing a wide area, these parks will provide various kinds of recreational facilities where people can seek refuge in idyllic surroundings far from the madding crowd. Jhalana Park will also cover the present Scout Camp area, thus providing camping facilities to the picnickers and holidaying parties. The erection of a golf course at the park has also been suggested.

There are many neglected picnic spots in the vicinity of Jaipur. Proper attention should be paid to the renovation of these places.

THE CITY ZOO

Visit to the zoo is great fun for children as well as for the animal loving elders. The city zoo is located amidst the spacious Ram Niwas Garden.

There are two different divisions—one for animals and the other for birds. The animal section contains rows of cages where attempts have been made to preserve the animals in their natural environment. Monkeys and deer are found in large numbers. There are many species of deer, e.g., Fallow deer, Black Buck, barking deer, Chinkara deer, Cheetal and Sambhar. There is a proposed scheme for having a deer park in the zoo which will include all the available species of deer. Among the monkeys there are Capochins, Red Potas, Stumptail, Shia, Spoder, Neelgiri Langur and the lion-tailed monkey. The queen of the zoo is the Babbar lioness, Sapko. She and her two cubs, Yatra and Puja are the main attractions of the zoo. The other inmates of the zoo are crocodiles, grey pelicans, spoonbill pelicans, white ibis, jabisu stork, porcupine, wolf, retal, Himalayan bears and wild boars.

The birds section of the zoo is a place housing beautiful creatures. God's unparalleled handiwork in designing the gorgeous patterns of bright hues for the birds is best displayed here. The constant chirping of the birds fills the whole air with nature's own melody. But a real treat is reserved for the eyes to behold the polychromatic parrots, birds of dazzling colours, the graceful white swans, cranes and the magnificent white peacock. There are big ponds of water where the geese, cranes, widgeons and ducks sail leisurely.

Though the zoo is a source of recreation in the city it does not attract many people. Only a few groups of people visit the zoo. To attract more public, the place needs to be properly developed. The existing conditions of unkempt cages, scanty number of animals and inadequate feeding should be ameliorated. There should be more new animals and the zoo environs should be made more pleasant and attractive.

CONCLUSION

Recreational and cultural activities are inseparably intertwined. In the development of a city this aspect should not be ignored. Heading towards modernization and urbanization the city should not allow the past cultural heritage to fritter away. The glorious heritage of Rajasthani culture, so well represented through the city of Jaipur needs to be preserved. In the maddening craze for the so called 'mod' things the old traditions of dances, songs and paintings have been relegated to the background. The famous *Katthak gharana* of Jaipur is not given due recognition and support, the ancient and medieval paintings are not displayed in exhibitions and the folk songs are retreating in face of the noisy film music. If not given proper attention, the city's culture, which is an amalgam of beautiful traditions, will come to a virtual death.

Tourism Development

Situated on the Tourist's Golden Triangle, Jaipur—the 'pink city of India'—attracts domestic as well as foreign tourists in large numbers. 'An idyllic place of unspoilt oriental charm', the city has remarkably preserved its historical monuments and retained its traditional architectural splendour. Notably, tradition and modernity have beautifully blended themselves to give Jaipur its unique charm as one of the best tourist attractions of the country. As a tourist enters the city of Jaipur, he is greeted with a myriad of bright colours, pink sandstone buildings, people clad in colourful costumes and innumerable collections of polychromatic handicrafts.

TOURIST ATTRACTIONS

Amber : Seven miles to the north of Jaipur lies Amber, the former capital of the State. This fortress, a palace standing majestically among the picturesque hills, is still haunted by the medieval aura of magnificence. The main hall of the palace known as the Hall of Victory exhibits some fine works of art, while Diwn-e-Khas and Jai Mandir are decorated with panels of alabaster and exquisite inlay work. Besides, the palace has the famous chamber of mirrors. Adjoining the palace is the temple of Kali, which is visited by thousands of devotees every day.

One of the prime tourist attractions at Amber is the majestic elephant ride. The tourists have an unresisting fascination for the gorgeously caparisoned elephants. As the elephants carry the tourists to the fort, musicians trail behind them, playing the popular tunes from Indian films and Rajasthan folk songs. Notably, the medieval splendour of Amber will soon be conjoined with modern facilities and luxuries. Keeping in view the large number of tourists visiting Amber, it has been proposed that a rest house be constructed here. Dala Ram ka Bag, Jaleb Chowk, and Kaisar ki Kyari, which adorn this beautiful hilly town, should be renovated. Besides, in the near future, the palace of Amber will also be reverberating with lilting melodies after the installation of the system of sound and sight, thus vicariously recreating the fascinating splendour of medieval romanticism and chivalry.

The beautification of Amber road has already begun. It is being bedecked with lush trees and attractive fencing. The Jorawarsingh Gate leading the tourists to the Amber fort will be renovated and mantled in a new look.

Hawa Mahal : Hawa Mahal or the Palace of Winds is a rare example of oriental architecture. Five storeys high, the pink sandstone edifice has a fanciful honeycomb design. The building comprises innumerable overhanging octagonal windows, topped by delicate domes. Hawa Mahal was built by Madho Singh I for the ladies of his court. Forbidden to go out, the ladies could at least have a glimpse of the moving pageantary on the main road, through the latticed windows. In the wake of revived enthusiasm for tourism, Hawa Mahal is now being designed to be converted into a full-fledged art gallery and museum. For this, the offices within the building are being shifted to other locations.

City Palace : Located in the heart of the city, the City Palace known as Chandra Mahal and surrounded by the Jai Niwas Gardens, has a beautiful museum displaying Rajput and Mughal paintings, rare Persian and Sanskrit manuscripts, Rajasthani costumes, jewellery, handicrafts and weapons.

Astronomical Observatory : The astronomical observatory at Jaipur, popularly known as Jantar Mantar is a glorious monument of Sawai Jai Singh's love for science. It has been characterized as the most surrealistic landscape in stone. The massive stone apparatus were designed to indicate local time, the sun's declination, azimuth and altitude, the declination of fixed stars and planets and to forecast eclipses.

Sisodia Gardens : Located on the Delhi-Agra road, it is a favourite holiday resort. The splendid palace of Queen Sisodia stands in the centre of the gardens. Here man's handiwork is well matched by the picturesque hilly surroundings. Medieval grandeur still permeates the inner portions of the palace, where the possessions of the queen are preserved as valuable relics.

Galta : Galta, situated on the hill ranges to the east of the city, abounds in pictorial beauty. A holy place for the Hindus, Galta has several temples, crowned by the Sun God's temple on the peak of the hills. Seen from this height, the city presents a fascinating spectacle. In the vicinity of the temples are situated seven tanks. One can also see here the mysterious *Gomukh*, which is a perennial flow of water from the mouth of a stone cow—the original source of this water still remains a mystery to be solved. At Galta the pranks of the frolicking monkeys attract the native as well as foreign tourists.

Gaitore : At the foot of the Nahargarh hill lie the cenotaphs of the rulers of Jaipur, comprising exquisitely carved kiosks of white marble. The most

beautiful cenotaph is that of Sawai Jai Singh which bears several engravings of dieties and numerous mythological events.

Nahargarh Fort : This spacious fort was built by Sawai Jai Singh in 1734. Later, an upper storey was constructed by Sawai Ram Singh II in 1868-69, and more apartments were added by Sawai Madho Singh II in 1902-03. At this point it may be interesting to note that a new road from Nahargarh Fort to Amber will soon be completed. Passing the winding road, the tourists will be delighted by the picturesque scenery around it.

Museum : The Central Museum at Jaipur came into existence in 1876 and was later shifted in 1887 to its present building of white marble known as Albert Memorial Hall. The hall preserves a rich treasure of archaeological exhibits, Indian paintings, textiles, pottery, china, metal works, jewellery, arms, ivory and brass work. The ground floor displays famous wall paintings—both Indian and foreign—while the main hall exhibits plaster casts of Greek, Roman and Babylonian gods and goddesses. The brass plaques portraying Ramayana scenes from Razamanah, a Persian translation of the Indian epics, are among the important artistic works displayed here. The carpet exhibit in the hall includes a big Persian garden carpet which is over 300 years old. The corridor outside the hall has a number of exquisite stone statues and sculpture pieces. There are some beautiful specimen of brass and enamelled work in the metal section. The upper storey retains numerous specimen of zoological, botanical and ethnological interest.

TOURIST TRAFFIC

More than a hundred thousand tourists visit Jaipur every year, of these around 40 per cent are foreign tourists while the rest are home tourists. Over the last few years, excepting during the slump period of 1971-72, the foreign tourist traffic to Jaipur has generally been on an increase. As table 13.1 reveals, there was a sudden decline in the number of foreign tourists during this slump period. This could be attributed to lock-outs in the Indian Airlines and the temporary closure of Rambagh Palace and Jai Mahal Palace during the said period.

As regards the home tourists, their number went up by about 80 per cent during the five year period 1969-73. However, in 1974 the number of tourists in this category recorded a decline, again to shoot up in 1975. It is possible to obtain authentic data about the number of foreign tourists coming to the city but there does not appear to be any determined rational procedure for collecting similar statistics pertaining to home tourists.

TABLE 13.1
NUMBER OF TOURISTS WHO VISITED INDIA, RAJASTHAN AND JAIPUR

Year	India	Rajasthan		Jaipur	
		Foreign	Home	Foreign	Home
1969	2,45,000	36,000	13,20,000	25,085	46,000
1970	2,80,821	39,500	13,50,000	27,595	47,620
1971	3,00,995	42,500	14,00,000	21,195	63,444
1972	3,42,950	48,350	14,50,000	19,760	75,425
1973	4,09,895	54,000	15,00,000	39,980	82,011
1974	4,23,161	55,781	15,50,000	39,791	67,971
1975	4,65,000	66,207	11,17,663	44,837	90,219

Source : Department of Tourism, Government of Rajasthan.

It is not encouraging to note that a fairly large number of foreign tourists who visit other parts of Rajasthan tend to exclude Jaipur from their itinerary. In the absence of any reliable data about the causes of this choice pattern, it is difficult to come to any substantive conclusion about this puzzling phenomenon. Even if we ignore the gap existing between the number of foreign tourists who come to Rajasthan and those who visit Jaipur, it is difficult to overlook the fact that only about 10 per cent of the foreign tourists who come to India, generally include Jaipur in their travel itinerary. This indeed is not a very happy state of affairs.

ACCOMMODATION FACILITIES

Jaipur provides a vast range of accommodation facilities to suit the varying demands of the tourists belonging to different economic classes, i.e., ranging from five star hotels to moderate *dharamshalas*. In all, there is accommodation for 500 tourists in the city. There are two five-star hotels in Jaipur, namely Rambagh Palace and Clarks Amber, and one three star hotel—Rajasthan State Hotel—and a number of two star hotels. Besides, the Government of Rajasthan runs a Tourist Bungalow with a capacity of 72 beds to cater to the needs of those tourists who require accommodation at economy rates. There is also a youth hostel in the city. In addition, numerous *dharamshalas* cater to the accommodation requirements of the home tourists. A new hotel, named Laxmi Vilas Hotel has recently been opened in the Rambagh premises, while another hotel is being planned in the residence of the Maharaja. Still another hotel of the Mundhra group near Sansar Chandra Road, with 100 beds capacity, is coming up fast. It has been financed by the Rajasthan Finance Corporation.

It is satisfying to mention that a new motel, known as Jaipur Inn is in the process of expansion. This has added a new dimension to city tourist life. More inns and motels would be required in the years to come,

It has also been decided to construct a 100 room hotel on the Delhi-Kotputli road. In addition, the Indian Tourism Development Corporation proposes to construct a three star hotel near the Collectorate.

Recently, the Government of Rajasthan has decided to give concession in the land conversion rates for construction of hotels in the State. This will certainly help promote the hotel industry in Rajasthan, with a favourable impact on Jaipur city itself.

With the increasing number of tourists in the city, it is necessary to provide for more hotels. Four new sites for big hotels have been proposed in the Master Plan—one on Jawaharlal Nehru Marg (besides the Clarks Amber), one in Tonk Road District Centre and two in the Sub-city Centre. In addition, the Master Plan has recommended the construction of another five star hotel, more tourist bungalows, holiday cottages and the development of other tourist facilities in the Jalmahal area.

It is also necessary to develop the existing two and three star hotels so that foreign and home tourists who require cheaper accommodation may get it easily. Further, greater emphasis should be placed on maintaining cleanliness and on making available delicious food at reasonable rates.

TRANSPORT FACILITIES

The Indian Tourism Development Corporation, in collaboration with the State Directorate of Tourism, daily conducts one tour round the city. The itinerary of these tours covers the famous historical places of the city. Tourist taxis, three wheelers, tongas and rickshaws are also available to the tourists. Three wheelers in the city are now operating with meters and thus a rate control policy is already being applied to auto-rickshaws.

However, these transport facilities are inadequate to cater to the demands of a large number of tourists. A very small number of taxis operate in the city and since they are not equipped with rate-meters, tourists are liable to be cheated sometimes. Therefore, total rationalization of the rate structure of these means of transport is urgently required. More local sight-seeing buses and new and bigger taxis should also be provided in the city. One may also consider prescribing a pink and black colour combination for all the metered taxis operating in Jaipur. This will be in consonance with the traditional character of the city. The Tourism Department of Government of Rajasthan has recently decided to operate a new transport section with an investment of Rs. 25 lacs. Under this scheme new tourist bus services will be operating on Delhi-Jaipur, Jaipur-Sariska, Agra-Jaipur, Ahemdabad-Udaipur and Ahemdabad-Mt. Abu routes. The Delhi-Jaipur de-luxe bus service has been operating since February 1976. This particular bus comes from Delhi to Jaipur via the

Sariska game sanctuary. These services are likely to increase the quantum of tourist traffic to Jaipur.

APPRAISAL

Jaipur occupies a crucial position on the international tourist map. It is linked with Delhi, Agra, Bombay and other big cities by rail, road and air. The well planned pink city of India offers special attractions to the tourists. But, suprisingly it receives only 10 per cent of the foreign tourists visiting India. To attract a larger number of tourists, several constructive measures need to be adopted.

Protecting Historical Monuments : With the passing of time the historical monuments of the city are bound to decay. Therefore, these monuments should be renovated on a regular basis. Besides, most of the monuments do not bear the sufficiently detailed inscriptions about the significance of the place. It is suggested that all the places of tourist attraction should bear inscriptions, enlightening the tourists on the history and legends relating to the monuments. In addition, all the approach roads leading to important sites of tourist interest should be repaired and maintained properly.

Opening an Armoury Museum : To perpetuate the memories associated with the historical valour of the city, Jaipur should have a separate armoury museum. The rich treasure of arms in Jaipur alongwith the ones collected from other sources can be exhibited at Nahargarh Fort. The armoury section of the Central Museum could also be shifted here. Likewise, the now famous Jaigarh fort could also be opened to the visitors and a museum of antiques could be housed here.

Although the suggestion for the installation of a ropeway in the Nahargarh region has been mooted, it may not be a financially feasible proposal right now. Scarce financial resources can certainly be used for more productive purposes.

Developing Garden Complexes : The Roopniwas Garden complex can be turned into a beautiful picnic place to attract both home and foreign tourists. This can be done only when additional land is obtained from the Social Welfare Department.

Notably, hills around Sisodia Gardens are ideal for the peace-loving tourists. It may be suggested that five cottages should be erected here to enable the tourists to spend some time in these idyllic surroundings.

Beautifying Jal Mahal Area : As soon as a tourist enters the precincts of Jaipur, he encounters the so called beautiful Jalmahal area, which despite its scenic beauty, is full of stinking water. It is suspected that the sewerage

system of Jaipur City opens into Jalmahal. Therefore, it is strongly recommended that the Jalmahal area should be cleaned and then developed into a beautiful artificial lake. To add to its beauty and utility, the idea of constructing a restaurant and a small hotel with two to three rooms could be considered favourably.

Expanding Hotel Facilities : Besides opening new two and three-star hotels, it is advisable to use New Hotel, Peeramal Hotel and the Yadgar buildings for providing accommodation to tourists. These buildings have been used for housing Government offices for too long. Alternative arrangements for official accommodation may now be devised.

Further, in case sufficient accommodation for M.L.As. could be provided elsewhere, the present Government Hostle could be converted into a tourist bungalow-cum-tourist information centre. It possesses ideal facilities for this purpose. The conversion of Zanani Dyodhi, situated at the rear side of Atish Market, into a two-star hotel could also be considered seriously. This place will be near to most of the places of tourists attraction. Above every thing, it will embody the traditional romantic heritage of Rajasthan—a phenomenon which still fascinates the foreigners visiting India.

Improving Transport Services : Although Jaipur lies within the Tourist Golden Triangle comprising Delhi, Agra and Jaipur, tourist traffic in Jaipur, as already mentioned, is relatively very small when compared to the other two cities. It will be appropriate therefore to introduce certain package tour programmes covering Delhi, Agra and Jaipur, so that a tourist who goes to Delhi and Agra also visits Jaipur. The return journey from Jaipur to Delhi may also cover Sariska. The Master Plan for Jaipur has recommended that fast and comfortable trains like Taj Express be introduced on Delhi-Jaipur-Agra route. A fast train between Jaipur and Delhi has already started operating with effect from 31 January, 1977. National Highways eight and eleven also need considerable improvement. These highways should be widened and reconstructed with the help of Haryana and U. P. Governments.

It may be pertinent to mention here that airport facilities for check-in and baggage delivery need to be expanded. These fall short of the ideal standards, particularly during the tourist season. Moreover, cloak room arrangements for the benefit of day-return passengers should also be made.

Regular Entertainment Programmes : There is no regular programme of entertainment for a tourist in Jaipur. It is surprising to note that, despite having a rich cultural heritage, Rajasthan has remained relatively slack in this field. It is recommended that during the tourist season, a regular programme of cultural entertainment, presenting a variety of folk songs, folk dances and folk puppetry should be organized. Until better arrangements are made, the

programme could be staged in the rehearsal room of the Ravindra Manch, which has the capacity to accommodate about 100 persons. To start with, Government should give subsidy in order to encourage the groups presenting cultural programmes.

New Reception Centres : Although tourist traffic by road between Delhi and Jaipur and between Agra and Jaipur has increased considerably, there is no reception centre at the roadways bus stand to guide the tourists. Even at the airport there are no arrangements made by the State Tourism Directorate or the Indian Tourism Development Corporation to assist the tourists coming to Jaipur. Therefore, it is suggested that the reception centres should be set up at the bus stands and at the airport to accord a warm welcome to the tourists and help them in making arrangements for their sojourn in the city.

Need for Training : An important problem concerning tourism development administration in Rajasthan is the lack of trained personnel in the Tourism Department. It is surprising to note that almost all the top officials presently manning the Department have not undergone any systematic training in tourism either in India or abroad. Therefore, the immediate requirement is to send these personnel to useful training programmes as well as to organize several courses with the collaboration of the HCM State Institute of Public Administration and the Directorate of Tourism of the Government of Rajasthan.

It may be mentioned that there appears to be existing a general feeling that the persons working in the profession of tourism do not take it as a 'mission'. It will be in the fitness of things if the training programmes for tourist personnel also emphasize the aspect of attitudinal change in addition to the enhancement of knowledge pertaining to the tourism enterprise.

Increasing the Competence of Tourist Guides : As of 1976, Jaipur had only 29 tourist guides. These guides are trained by the Government of India's Tourist Office. The HCM State Institute of Public Administration also conducted a training programme for tourist guides in 1976. However, there is a noteworthy lacuna in the system : very few tourist guides know a European language other than English. It is essential therefore that a European language in addition to English should be made compulsory for the trainees in the programme of the recruitment of tourist guides. Knowledge of French and Spanish would appear to be more desirable, if we take into account the large number of French speaking and Spanish speaking tourists coming to Jaipur city.

Moreover, the guides available at the historical places and other tourist spots are untrained and not thoroughly competent. In fact no formal arrangement exists for their training. It is proposed, therefore, that adequate training should be imparted to them in regard to the particular places where they are posted.

Developing Sight-seeing Transportation : The sight-seeing coaches plying in the city, though presenting an attractive appearance, are not properly maintained. As a result, the running commentary given by the guides in these coaches is sometimes marred by the noisy engines of the vehicles. Rigorous maintenance of these coaches should be a subject of prime concern. In addition, looking to the increasing tourist traffic in the city, four more air-conditioned and de-luxe buses should be provided for sight-seeing tours in Jaipur.

Elephant Ride : The Government should provide subsidy and financial assistance to elephant owners so that they can maintain their elephants properly. Finances would also be required for better and more decorated *haudas*. The Government should also take suitable action for the building of elephant sheds.

It is important to underscore the necessity of appointing a special official board to issue, on a regular basis, medical fitness certificates for elephants. The present system of entrusting this task to the Elephant Owners' Association does not appear to be fool-proof.

Vigorous Publicity : The enormous tourist potential of Jaipur needs to be supported by effective publicity throughout India and the world. International airports everywhere should display 'Visit Jaipur' posters. Besides, attractive brochures should be distributed through tourist offices, embassies and other organizations. A crash programme of publishing pictorial tourism literature and picture post cards needs to be undertaken without further delay.

Controlling Beggary and Cheating : Hospitality to the tourists demands that they should not be pestered by nagging beggars, nor troubled by some dishonest shopkeepers. The Government should try and put an end to beggary so that the tourists do not return home with a wrong impression of our society. Already some areas of the city have been cleared of beggars. The measures need further support. The tourists are also liable to be cheated by certain shopkeepers who charge unreasonably high prices for wares of tourist interest and particularly for handicrafts and jewellery. Therefore, a stern check is needed on the shopkeeper's conduct. They should be asked to display price tags for articles on sale. Private profiteering should not be done at the cost of national goodwill. Tourist guides also need to be more careful about the tourists' sentiments. All those who visit India are our country's honoured guests and our culture does not teach us to hoodwink those who intend to rely upon our traditional goodwill and moralistic values.

Creating Tourist Police Force : It may also be worthwhile to have a separate tourist police force in the city, to be posted at important monuments

and tourist traffic points. The traffic police will ensure that the tourists' convenience is properly looked after.

In the end, it may be stressed that the development of tourism in Jaipur, besides taking into account the requirements of the Master Plan, should be done in consonance with other aspects of city life. The bubbling enthusiasm for the tourism industry should be buttressed by an integrated and long-range planning effort. For this, a concerted approach to policy planning and administrative action is a must. This could be translated through a Master Plan for Tourism in the State for the period 1977 to 1991. It would also be useful to implement some of the important recommendation of the Government of India's Study Team on tourism in Rajasthan. The Directorate of Tourism's decision to declare 1977 as the Year of Tourism reflects a new a wakening on the part of the Government to the efficacy of tapping tourism potentialities in the State. Hopefully, Jaipur will gain most through the new developmental measures being conceived in this realm.

The Approach of the Master Plan

Planned growth of a city needs to be based on a long range, comprehensive and general plan which would provide definite guidelines for the future development of an urban region. Essentially, town planning is a means of translating the whole community requirements in spatial terms as also an instrument of introducing "order and system" in the pattern of urban growth.

Under Section 3 of the Rajasthan Urban Improvement Act, 1959 (Act No. 35 of 1953), the State Government has been empowered to require the preparation of a Master Plan for any urban area in the State. It is stipulated in the Act that before such a Master Plan is finalised, its draft shall be circulated for inviting objections and suggestions from the public. Accordingly, the Chief Town Planner and Architectural Advisor of the Government of Rajasthan, with the approval of the Advisory Council specially set up for this purpose, published a Draft Master Plan for Jaipur in 1972.

As per rules, 30 days time was allowed to the public for filing comments, objections and suggestions. This period was extended by another 30 days. In all, about 500 suggestions were received from various sections of the society. The breakdown of various categories is given in Table 14.1.

After numerous site inspections and personal discussions with the groups of people affected by the proposed Master Plan, final report was prepared in December 1974. It was later submitted to the Advisory Council which met in February and May '75. Following the approval of the report by the Advisory Committee, the Master Plan was submitted to the Government which, in turn, approved it in 1976.

The fifteen year perspective plan, with 1991 as the horizon year, covers the urban area of Jaipur comprising 71 revenue villages of Jaipur tehsil, 54 revenue villages of Sanganer tehsil, 6 revenue villages of Amber tehsil and the city of Jaipur itself.

In this chapter, a brief survey is attempted of the planning principles enunciated in the Master Plan as also of the salient features of the land use

TABLE 14.1
COMMENTS ON THE DRAFT MASTER PLAN
FROM VARIOUS GROUPS

	Category	Number
Group A	Central and State Government Departments and autonomous bodies	13
Group B	Non-Government institutions/associations/societies, excluding co-operative societies	31
Group C	Housing Co-operative Societies	21
Group D	Urban farmers	331
Group E	Individuals and groups of individuals	98
Total		494

plan. Major recommendations of the Master Plan concerning housing, electricity supply, health, education, tourism and other functional areas have been mentioned at appropriate points throughout the preceding pages, and therefore, to avoid repetition, recommendations pertaining to these areas are not being alluded to in the present chapter.

PLANNING PRINCIPLES

The Jaipur Master Plan is based on certain fundamental planning principles, a brief reference to which may be made here. These are :

1. Government and semi-Government offices should be clustered in organized complexes with adequate housing and traffic facilities nearby.
2. Commercial activities should be rationally distributed in order to minimise travel period.
3. Planned industrial areas should have good designs and high performance standards; their location should be in right relationship with other uses.
4. Provision for full range of facilities like transportation, boarding and lodging should be made for the promotion of tourism. Besides, traditional architecture of the city should be preserved and protected. Historical places need to be protected from the invasion of modern structures.
5. In the old city, land should be allocated for various uses in appropriate locations. Moreover, reconstruction of certain deteriorated pockets should be undertaken for providing the essential community facilities.

6. Greater rationalization of densities in residential areas should be attempted by narrowing down disparities. Good residential areas should not be allowed to be misused for non-residential purposes.
7. Public utilities and community facilities should be properly distributed in the urban areas according to the levels of residential densities and accepted planning standards.
8. Systematic distribution of recreational facilities should be made at the Regional, City and local levels. Development of the places of historical interest and natural beauty should be paid proper attention.
9. There should be a synchronization between the land use plan and the transportation plan. A hierarchical system of the circulation pattern should be evolved with an objective of making optimum use of the different types of roads and streets.
10. In order to check any haphazard growth around the city, a peripheral control belt should be provided around the urbanizable limits of 1991.
11. The entire urban area of the city should be divided into a number of planning districts which would be like self-contained units in the spheres of employment, residential places, shopping, recreational facilities etc. These should be supported by detailed sector plans.

POPULATION PROJECTION AND THE PROPOSED OCCUPATIONAL STRUCTURE

The Master Plan projects the population of Jaipur city in 1991 at 12.5 lakhs, thus estimating a growth rate of 6.5 per cent per year.

It is estimated that by 1991, the working force of the city will constitute about 35 per cent of the total population. Table 14.2 gives the estimated break down of people's occupations in the year 1991.

TABLE 14.2
OCCUPATIONAL STRUCTURE OF JAIPUR : 1991

Occupation	Persons	Percentage
1. Agriculture	1,750	0.4
2. Mining and Allied Activities	2,600	0.6
3. Industries	1,44,400	33.0
4. Construction	24,100	5.5
5. Trade and Commerce	70,000	16.0
6. Transport and Communication	35,000	8.0
7. Other Services	1,59,700	36.5
Total	4,37,500	100

Thus it is estimated that 36.5 per cent of the city's working force is likely to be engaged in the service sector; 33 per cent in industries; 16 per cent in trade and commerce; 8 per cent in transport and communication; and 5.5 per cent in construction activities. On the other hand, the number of persons engaged in agriculture and mining and allied activities, in comparison to the rest of the categories, will be insignificant.

URBANISABLE AREA AND THE LAND USE PLAN

The Jaipur Master Plan estimates that by 1991, Jaipur would cover as much as 33,500 acres of developed land as against 10,000 acres covered in 1971. In all, the urbanizable area is likely to be of the order of 38,400 acres as against 14,410 acres in 1971. As table 14.3 reveals, the overall percentage share of land for residential, commercial, governmental, recreational and circulation uses is not expected to fluctuate much between 1971 and 1991. However, the share of land used for industrial purposes is likely to move up from 7.1 per cent in 1971 to 13.3 per cent in 1991. Conversely, for the public and semi-public uses, the percentage share of land is likely to go down from 16.8 to 7.7, although in gross terms, the acreage will go up from 1,680 to 2,580 acres.

TABLE 14.3
LAND USE IN JAIPUR 1971 and 1991

Use	1971		1991	
	Area in Acres	Percentage of Developed Area	Area in Acres	Percentage of Developed Area
1. Residential	5,000	50.0	17,200	51.3
2. Commercial	340	3.4	1,600	4.8
3. Industrial	710	7.1	4,460	13.3
4. Governmental	210	2.1	440 *	1.3
5. Recreational	330	3.3	1,000	3.0
6. Public & Semi-public	1,680	16.8	2,580	7.7
8. Tourist Facilities	—	—	200	0.6
8. Circulation	1,730	17.3	6,020	18.0
Developed Area	10,000	100.0	33,500	100.0
9. Government Reserved	1,990	—	2,500	—
10. Agriculture	985	—	1,000	—
11. Water Bodies	—	—	1,400	—
12. Other Vacant Under-developed Land	1,435	—	—	—
13. Reserved Residential and Industrial	1,325	—	—	—
14. Urbanized Area	14,410	—	—	—
Urbanizable Area	—	—	38,400	—

* This does not include 60 acres provided for commercial use in the Sub-City Centre and some of the District Centres.

It is important to mention that the hill ranges towards east and the north and the army establishments in the north-west of the city do not leave much scope for the city's expansion in these directions. Thus most of the expansion of the city shall be confined to the south and south-west regions. Airport towards the south defines the southern limit for future development. Sanganer town has been considered as a part of future Jaipur since it is believed that this suburb may not escape the economic pressures of the development of Jaipur.

PLANNING DISTRICTS

With an objective of facilitating the planning and development tasks in a scientific manner and of providing civic amenities appropriately at the local, community and city levels, the proposed urban area of Jaipur has been divided into nine planning districts or zones. These zones have been based on an analysis of the existing pattern of growth, the proposed location of various economic activities, existing natural and physical constraints and functional relationships. Each planning district is expected to emerge as more or less a self-contained unit in matters of employment, housing, shopping, recreation and other community services and facilities. Table 14.4 depicts the respective areas of the proposed nine districts.

TABLE 14.4
APPROXIMATE AREA OF PROPOSED PLANNING DISTRICTS : 1991

Planning Districts	Area (in Acres)
A. Walled City	3,850
B. Bani Park District	2,700
C. Ashok Nagar-Tilak Nagar District	3,300
D. Gandhi Nagar District	3,050
E. Jhotwara District	6,470
F. Civil Lines District	8,180
G. Sanganer District	5,250
H. Jhalana District	5,600
Urbanizable Area	38,400
I. Green Belt District	59,900
Notified Urban Area	96,300 or 38,559 km.

It is pertinent to note that the first four districts listed in table 17.3 cover most of the existing developed area, while the next four include most of the urbanizable land. The last or the Green Belt District shall cover all the peripheral areas between the urbanizable areas and Jaipur urban areas covering 132 revenue villages. The Master Plan proposes the development of certain selected rural settlements as 'urban villages' to strengthen the economy of rural population living in the district. The Green Belt District shall comprise

Amber town towards the north and Kanakpura Bindaika township towards the west.

It has been laid down that each planning district, for purposes of detailed planning, shall be further subdivided into a number of planning areas and planning units. In prescribing the boundaries of the various planning areas within each planning district, the principal guiding factors would be existing physical barriers, pattern of development and major variations of land uses.

GOVERNMENT OFFICES

Being the capital city of Rajasthan, Jaipur is likely to experience a considerable increase in the number of Government employees in the times ahead. It is estimated that employment in public offices situated in Jaipur may be of the tune of 56,000 by 1991 as against 21,000 in 1969-70. Thus in 1991, this group will constitute 13 per cent of the working force. The Master Plan proposes to develop a number of public office complexes and distribute the total employment accordingly. It is planned to expand the Secretariat complex towards the south, terminating at the proposed site for the new Legislative Assembly building. Moreover, the Collectorate complex will be enlarged and a new complex is proposed to be developed in the new sub-city centre in the south west. The total area of Secretariat, Collectorate and Jaleb Chowk is likely to be 350 acres, as against 190 acres at present. Thus, additional land of the order of 150 acres will be required for these regions.

In the Master Plan, an additional area of 150 acres has been earmarked for the new office of the Western Railway to be constructed on account of the proposed laying of broad gauge line in the Jaipur region. Table 14.5 gives details of acreage required for the Government office distribution by 1991.

TABLE 14.5
GOVERNMENT OFFICE DISTRIBUTION : 1991

Location	Area (in Acres)
1. Secretariat Complex	165
2. Collectorate Complex	35
3. Jaleb Chowk Complex	15
4. P. W. D. Complex	50
5. Sub-City Centre	30
6. District Centres	30
7. Others	25
8. New Railway Office Complex	150
Total	500

Besides 2,500 acres of land will be earmarked for Government reserve use in 1991 as against 1990 acres in 1971.

COMMERCIAL AREA DEVELOPMENT

It is estimated that by 1991, about 16 per cent of the total working force or about 70,000 persons will be engaged in various commercial and business establishments in Jaipur. In order to obviate the necessity of daily travelling to the Central Business Area, a hierarchy of commercial centres has been proposed in the Master Plan. At the apex of the hierarchy will be the Central Business Area, while the sub-city centre, district centre, local shopping centres and convenient shops will form the second, third, fourth and the fifth level respectively of this pyramid. Table 14.6 presents the proposed commercial area in Jaipur in 1991.

TABLE 14.6
DISTRIBUTION OF PROPOSED COMMERCIAL AREA IN JAIPUR : 1991

Type of Commercial Activity	Proposed Area (in Acres)
1. Central Business Area	570
2. Sub-City Centre	115
3. District Centres	180
4. Special and Wholesale Markets	230
5. Warehouses and Godowns	335
6. Hotels	125
7. Other Commercial Area	45
Total	1,600

On account of limited expansion possibility within the walled city, a number of new commercial areas, as extension of the Central Business Area, have been proposed outside the walled city. These include Sanganeri Gate Commercial Complex, shopping centre on Government Garage, site on Mirza Ismail Road, Kalwar Shopping Centre near railway station, new fruit and vegetable market near Ghat Gate, new grain mandi outside Suraj Pole, truck terminal on Agra Road, and new district centre near Dhruv Pole. The newly developed Indira Market is also a part of this plan. Besides, another market from Sanganeri Gate to Ghat Gate is under construction.

The Master Plan envisages the development of a new sub-city centre covering 115 acres at the junction of Tonk Road and Ring Road. This centre will serve about 4.5 to 5 lac people and perform most of the city centre functions.

The decentralized commercial pattern also stipulates that there will be five district centres, each acting as a large commercial complex. Each such

centre may have hotels, retail shops, cinema houses, service stations, post and telegraph office, fire station etc. Generally a population of one to two lacs will be served by each centre. Table 14.7 presents the area of the proposed district centres.

TABLE 14.7
COMMERCIAL DISTRICT CENTRES IN JAIPUR : 1991

District Centre	Area (in Acres)
Subhash Nagar District Centre (in Bani Park)	20
Lalkothi District Centre (in Gandhi Nagar)	20
Sanganer District Centre (in Sanganer)	20
Ajmer Road District Centre (in Civil Lines)	40
Sikar Road District Centre (in Jhotwara)	20
Total	120

In addition to the five district centres, three sub-district centres have been proposed in Jaipur, each covering 10 to 20 acres of land. They will be situated at the following sites :

1. Along Amber Road, north of Zorawar Singh Gate
2. Along Govind Marg and along the main east-west road in Jawahar Nagar
3. Along Jawaharlal Nehru Marg, north of Clarks Amer Hotel

It has been further prescribed that each planning area will have a local shopping centre which will serve a population of 20,000 to 25,000. Thus there will be functioning a number of shopping centres in each planning district. It is estimated that each centre will require about three to five acres of land and shall comprise retail shops, service shops, a post office, a community hall etc.

The Jaipur Master Plan has proposed the setting up of convenient shops in each planning unit for meeting day-to-day requirements of the people. Accordingly, each planning unit will be provided a cluster of 6 to 10 such small shops which will serve 4,000 to 5,000 population. Further, each planning area may have four to five planning units.

Besides the above mentioned hierarchy of commercial areas, the city of Jaipur will also develop a number of specialized and wholesale

markets, particularly grain markets, fruit and vegetable markets, markets for building material, iron and steel, scrap metal, coal and timber and lastly a slaughter house. The most notable of all these is going to be a massive grain market sprawled into an area of 100 acres. Operated with the assistance of Rajasthan State Agriculture Marketing Board, this market is likely to prove a boon to the unorganized small farmers who wish to sell their produce at fairly reasonable prices.

The Master Plan has also proposed to provide warehousing and godown facilities in Jhotwara Industrial Area, Jaipur South Railway Station, South of Industrial Estate, Gandhinagar Railway Station, and Sanganer Industrial Area.

The existing stone quarrying and crushing operations concentrated in the hill ranges along the northern side of the city will be shifted to the other side of hill ranges. For this an area of 200 acres has been earmarked.

INDUSTRIAL AREAS

As already noted, 1,44,400 persons comprising about 33 per cent of the city's population, are likely to be engaged in industrial activity in Jaipur by 1991. Out of these, about 30 per cent will be in the household industry, 40 per cent in small scale and light industry and 30 per cent in large scale and extensive industry.

The Master Plan has underscored the necessity of developing future industrial establishments only in organized industrial areas. Table 14.8 presents proposed size of various industrial areas to be developed by 1991.

TABLE 14.8
INDUSTRIAL AREAS IN JAIPUR : 1991
SIZE IN ACRES

Location	Small Scale & Light	Large Scale & Extensive	Total
1. Jhotwara Industrial Area	440	2,090	2,530
2. Near Jaipur Railway Station	—	230	230
3. Jaipur South Industrial Area	280	—	280
4. Gandhi Nagar Industrial Area	150	30	180
5. Sanganer Industrial Area	700	—	700
6. Jhalana Industrial Area	500	—	500
Total	2,110	2,350	4,460

Thus the expansion of the existing industrial areas and the setting up of new ones has been proposed in the Master Plan. Notably, the existing

Jhotwara industrial area will be enlarged to link it with Vishwakarma Industrial Area. Adequate component of housing will be developed around these areas.

PERIPHERAL CONTROL BELT

Under the Master Plan, a regulatory belt of about $1\frac{1}{2}$ to 2 miles has been proposed to be formed all around the prescribed urban area. This peripheral belt shall consist of a number of revenue villages and two small urban centres, viz., Amber town in the north and the new Kanakpura-Bindaika industrial township in the west. These urban centres will have considerable economic linkage with Jaipur city. Besides, it is also proposed to develop villages lying within the peripheral control belt. All this reflects an integrated developmental approach of the Master Plan of Jaipur.

CO-ORDINATION AND PARTICIPATION

The Master Plan has favoured the creation of a unified co-ordinating and enforcement agency for the implementation of the land use plan and community services development. A more detailed reference to such a body has been made in the present study in the chapter on administrative agencies. In addition, it has been rightly stressed in the Master Plan that its successful implementation will depend essentially upon the co-operation and willing participation of the people in the enormous task of Jaipur's balanced development.

APPRAISAL

The Jaipur Master Plan, as its framers have put it, is a comprehensive and general plan. It is comprehensive in the sense that a systematic approach has been attempted in the document, involving an integrated development of various functional areas concerned with the city's development. It is general in the sense that several specificities have been avoided with an objective of rendering it a measure of flexibility.

However, one feels that greater attention could have been paid to the elaboration of social ecology of the city of Jaipur. The problem of human settlement becomes more comprehensible when viewed in its proper ecological setting.

In view of the fact that projections for the population of Jaipur for the horizon year 1991 were made on the basis of the census of 1961, a possibility of encountering deviations in populations from the projected points would remain. It might be advisable therefore to have continuous exercises of reappraisal concerning various aspects of the Master Plan. For this, alternative models of growth linked to different population projections could be devised.

It is learnt that the Town Planning Organization proposes to draw three "five year plans" for the implementation of the Master Plan during the period 1976-1991. This would be an extremely useful exercise. An element of flexibility should be introduced in the Plan, but modifications should be based only on rigorous analysis and rational considerations. Surplus land acquired on account of the urban ceilings legislation and de-acquisition of land from housing co-operative societies will make such an exercise of reappraisal inevitable. Regarding sewerage and drainage, the Master Plan has mentioned that the Public Health Engineering Department should prepare a separate master plan for this purpose. It is essential that a comprehensive plan for this functional area be prepared at an early date and implemented effectively.

Another aspect which requires detailed planning is the development of the villages which are planned to be incorporated into the urban area of Jaipur under the Master Plan. These urban villages, besides being developed fully, need to be systemically integrated with the rest of the urban community.

The success of the Master Plan would not just lie in its meticulous drafting but more so in its faithful implementation. A unified enforcement system in this sphere can be devised through the creation of an apex body such as the proposed Jaipur Development Authority. Rigorous thinking sans effective co-ordination might turn out to be an exercise in futility.

The Administrative System

This brief chapter is not designed to present a detailed descriptive account of various administrative agencies engaged in the development of Jaipur city, but is only a modest attempt to highlight the crucial problem of co-ordination among these agencies. The city of Jaipur is suffering from a lack of synchronized approach to its development. There is also the conspicuous absence of effective mechanism which can integrate and co-ordinate various State-level, district level and city level administrative agencies having direct or indirect impact on the city life.

At the State level, departments such as Local Self Government Department and the newly created Town Planning Department and Housing Department are deeply concerned with the problems pertaining to urban growth. Important policy issues relating to Jaipur's development have been thrashed out recently at the level of Local Self Government Department. The direct active role played by the State Minister for Local Self Government in making important decisions regarding Jaipur's beautification, slum clearance and cleanliness is a case in point. Despite its effectiveness, this type of co-ordination and control exercised by a Minister can at best be *ad hoc*; it needs to be strongly supported by the regular administrative channels.

MULTITUDE OF STATE-LEVEL AGENCIES

Besides the three major departments, a large number of organizations engaged in performing specific functions play an important role in the dynamics of city life in Jaipur. Water supply is arranged by the Public Health Engineering Department; sewerage disposal is also one of its responsibilities; ground water sources are tapped by the Ground Water Department; Public Works Department maintains the National Highways, district roads and large number of city parks; Medical and Health Department organizes public health services in the city; Education Department supervises the management of primary and secondary educational institutions; Police Department controls the city traffic, Transport Department regulates the vehicles plying in the city; Rehabilitation Department still enjoys the jurisdiction over the vast colonies of Adarsh Nagar, Guru Nanakpura and Raja Park, besides engaging itself in a

sporadic activity like construction of Indira Market; Social Welfare Department ensures the proper management of Government and voluntary welfare agencies; Forest Department has jurisdiction over large forest land and the city zoo; development of tourist facilities in the city is a prime concern of Tourism Department; the maintenance of museums is the responsibility of the Department of Archaeology and Museums, Industries Department formulates policy concerning the industrialization in urban and suburban areas; and the Office of the Chief Town Planner is entrusted with the enormous task of facilitating the execution of the Jaipur Master Plan which was approved by the Government in 1976.

In addition to the regular Government departments, numerous autonomous organizations are associated with the intricate process of Jaipur's urban development. Rajasthan Housing Board is concerned with the development of new housing colonies, particularly for middle and lower income groups—it has also constructed recently a new shopping centre known as Janta Market on behalf of the Jaipur Municipal Council; Rajasthan State Electricity Board supplies electricity to the city consumers for domestic as well as commercial purposes; Rajasthan State Industrial and Mineral Development Corporation promotes and regulates the development of major industrial areas in the city; Rajasthan Financial Corporation grants loans to the budding entrepreneurs for the development of industrial units; Rajasthan Small Industries Corporation supports a large number of household industrialists of Jaipur and of the surrounding areas through its bulk purchases of handicraft goods; Rajasthan State Road Transport Corporation runs the City Transport Service; Rajasthan State Co-operative Housing Financial Society Ltd. provides loans to the members of weaker sections for the construction of houses; and Rajasthan State Agriculture Marketing Board is developing a huge *mandi* in the Surajpole area. The urban development of the city is also affected by numerous Central agencies, particularly in the management of cantonment areas and Railway colonies.

In addition, there are agencies such as Rajasthan State Sports Council, Rajasthan Lalit Kala Academy, Rajasthan Sangeet Natak Academy, Rajasthan Sahitya Academy, Rotary Club and Lions Club which, through their numerous activities, enrich the cultural and recreational life of the city.

The Collector of Jaipur District, by virtue of his chairmanship of the Improvement Trust, is intimately involved in the formulation and execution of plans for Jaipur's development. In addition, the district administration is engaged in the implementation of the provisions of several legislations which pertain to the regulated development of urban areas in the district.

At the city level, two most important agencies for the administration of Jaipur's planned development are the Urban Improvement Trust and the

Jaipur Municipal Council. A brief description of the functions and organization of these, the Rajasthan Housing Board and the Office of the Chief Town Planner will be attempted below.

RAJASTHAN HOUSING BOARD

The Rajasthan Housing Board was set up in February 1970 under the provisions of Rajasthan Housing Board Act of 1970. Under the Act, the Board has been assigned the task of undertaking schemes for rebuilding, rehousing, rehabilitation, commercial or commercial-cum residential purposes and subsidized industrial housing, depending on the priorities laid down by the Government. All these schemes involve the selection and acquisition of suitable land in different areas of the city, evolving of appropriate designs for the houses in the scheme areas, mobilization of the necessary financial resources, development of land, construction of houses on a mass scale, allotment of these houses among various income groups on a rational basis, and arranging for the availability of essential public utility services in the scheme areas.

The Rajasthan Housing Board has developed a large number of housing colonies in the State of Rajasthan. In Jaipur, it had allotted 5,397 houses upto April 1976. Most of these allotments were made to members of the middle and low income groups. Among the colonies already developed by the Housing Board are Jawaharnagar and Nahri ka Naka, while two new colonies are being developed near Idgah and Clarks Amber area.

It is significant to mention that the Board has been able to generate a new consciousness towards environmental hygiene among the urban planners and the people of the city. The Jawaharnagar colony built by the Housing Board is the first residential area of the city with a proper underground sewage system. Besides, a rational planning of the area with appropriate provisions for public parks and healthy surroundings has made this colony an ideal place for living.

Another contribution of the Rajasthan Housing Board is evident in arresting the rents of residential accommodation in the city. By constructing more than five thousand houses in Jaipur, it has prevented house rents from skyrocketing.

Organizationally, the Rajasthan Housing Board is composed of a non-official Chairman, the Finance Commissioner, the Secretary for Town Planning, the Chief Town Planner, the Housing Commissioner and five other non-official members. This structure of the Board gives greater representation to the non-officials than to the officials. Yet it has been found that the non-official members (excepting, of course, the Chairman) have not contributed significantly in the policy process of the Board. In the Board meetings,

most of the ideas seem to flow from the Chairman, the Housing Commissioner, a few official members and from the Secretary of the Board who also attends these meetings.

A few suggestions may be made concerning the organization of the Board. Firstly, the Chairman of the Board who is given the status of a Cabinet Minister of the State should be invited to Cabinet meetings whenever matters pertaining to housing development are discussed in the Cabinet. This will facilitate greater integration of housing policy in the State. Secondly, the other non-official members of the Board, who are eminent public figures, should participate more vigorously in the proceedings of the Board. Lastly, the Board Secretary who is virtually the head of the administration, should be made Member-Secretary of the Board. The Secretary, being the chief implementing authority of the decisions of the Board, needs to be given his respectful status. This is bound to end an organizational anomaly as also enhance administrative co-ordination and effectiveness in the sphere of housing development in the State.

OFFICE OF THE CHIEF TOWN PLANNER

Functioning under the State Department of Town Planning, the Office of the Chief Town Planner and Architectural Adviser is the main town planning agency for the State of Rajasthan. Its primary responsibility is to prepare the Master Plans of major towns of the State as also help the Government in the task of their implementation. The Chief Town Planner conducts civic surveys required for the preparation of Master Plans, assists the municipalities and the Improvement Trusts in the preparation of town planning schemes, advises local bodies with regard to the subdivision of land by private individuals, and recommends to the Government measures relating to acquisition, compensation, betterment and reconstitution of land. In addition, the Chief Town Planner approves building plans of local bodies for construction of residential houses, markets etc. out of the grants and loans sanctioned by the Government. Further, the Chief Town Planner frames model building bylaws for the guidance of the various local bodies and advises the Government on amendments necessary in the building bylaws in force. It is the responsibility of the Chief Town Planner to keep a watch on any possible negligence on the part of local bodies in taking effective steps to check haphazard developments in their towns. Instances of defaults in this sphere are brought to the notice of the Government.

The Chief Town Planner also advises the public authorities in regard to village planning and the formulation of rural housing schemes. Moreover, he prepares development plans for new towns and villages to be established under the different irrigation projects. He also advises the

Government on housing, slum clearance, prevention of slums, and on regional planning for urban development.

It may be pertinent to mention that the Chief Town Planner and Architectural Adviser of Rajasthan has been successful in accelerating consciousness among civic authorities and public men towards the significance of town planning, architectural controls, building bylaws and beautification drive in the city. His contribution in the form of the finalization of Jaipur Master Plan and underscoring its sacrosanctity has been indeed phenomenal. The final test will certainly lie in the implementation of the Master Plan.

As far as the execution of the Master Plan is concerned, the Chief Town Planner and Architectural Adviser works under the guidance of an Advisory Council which is headed by the Minister for Town Planning. Other members of the Council are Secretary for Town Planning, Finance Commissioner, Revenue Commissioner, Industries Secretary, Collector of Jaipur, Director of Agriculture, Chief Engineer of Public Works Department (B&R), Chief Engineer of Public Health Engineering Department, Development Commissioner (now Principal Agriculture Secretary), Divisional Superintendent of Western Railway, Station Commander of Jaipur, Administrator of Jaipur Municipal Council, Chairman of Urban Improvement Trust (presently Collector himself), a representative of Rajasthan Chamber of Commerce and three public figures. The Chief Town Planner and Architectural Adviser is the Member-Secretary of the Council.

From organizational viewpoint, work pertaining to the town planning of Jaipur city is looked after by a Senior Town Planner who works under the guidance and direction of the Chief Town Planner and Architectural Adviser. The Senior Town Planner, in turn, is assisted by a Deputy Town Planner and an Assistant Town Planner. Besides, another Senior Town Planner has been posted in Rajasthan State Agricultural Marketing Board, while one Deputy Town Planner each has been deputed in Rajasthan State Industrial and Mineral Development Corporation, Urban Improvement Trust and the Rajasthan Housing Board respectively.

URBAN IMPROVEMENT TRUST

For the purpose of facilitating planned urban growth in important towns of the State, the Government of Rajasthan has set up Urban Improvement Trusts in 14 cities. These organizations have been created under the Rajasthan Urban Improvement Act of 1959.

In Jaipur, the Urban Improvement Trust was set up in 1959. It carries out, among others, the following important responsibilities :

1. Improvement of neglected urban areas;
2. raising of funds for new urban development schemes;
3. formulation of schemes under the Master Plan for the balanced and comprehensive development of urban regions;
4. execute these schemes and plans in co-ordination with other urban developmental administrative agencies;
5. acquire land from Governmental and non-Governmental agencies, develop this land and then distribute it; and
6. undertake slum clearance programmes.

It is significant to mention that the Urban Improvement Trust of Jaipur has made a tremendous impact on the city. The Trust piloted a planned expansion of the city by acquiring a huge amount of land and distributing it after proper development. Several new residential and commercial centres have sprung up and developed as a result of the Trust's consistent policies and efforts for faster urban growth. Further, it has, particularly since the declaration of Emergency, paid considerable attention to the beautification of the city through the development of parks, traffic islands, fountains and road indicators. Flower exhibitions organized by the Trust every year reflect this organization's growing interest in preserving aesthetic character of the city. Of course, a question remains whether it should have undertaken an activity like the construction of a shopping centre such as Jayanti Market. A diffusion of activities may not be quite desirable, particularly at a time when more pressing challenges confront the Urban Improvement Trust.

While referring to the U. I. T.'s impact on the city life, one is struck by the massive work done by this agency in the sphere of slum clearance. Development work undertaken in a large number of *katchi basties*—details for which have already been given in the chapter on slums incorporated in this study—speak volumes for the U. I. T.'s commitment to the cause of Jaipur's balanced growth.

The Urban Improvement Trust of Jaipur is headed by the Collector of Jaipur District, while the Superintending Engineer of Public Works Department (B&R), Superintending Engineer of R.S.E.B., Superintending Engineer of Public Health Engineering Department, the Administrator of Jaipur Municipal Council and all the four M. L. As. of Jaipur are its other members.

The general administrative work of the Trust is performed by its Chairman who is assisted by the Trust's Secretary. The Secretary, in turn, is supported by a large administrative and technical staff comprising an Assistant Secretary, one Deputy Town Planner, three Executive Engineers, four Assistant Engineers, one Land Acquisition Officer and one Officer on Special Duty.

In the absence of a whole-time Chairman, the U. I. T. is working under the day-to-day administrative control of the Secretary. Since the declaration of Emergency, the role and responsibilities of the Secretary of the Trust have immensely increased. And yet an organizational anomaly exists in the form of the Secretary not being a member of the Trust. In an organization such as the Urban Improvement Trust where much of its success depends upon the day-to-day implementation of broader policies, Secretary's inclusion as a regular member of the higher policy making body appears to be desirable. It is suggested therefore that the Secretary of the Trust should be formally made its Member-Secretary.

JAIPUR MUNICIPAL COUNCIL

The Jaipur Municipal Council is responsible for the maintenance of street lights; constructing and maintaining municipal roads; undertaking public health measures concerning cleanliness, sanitation, garbage collection, and sewer lines; arranging for public safety measures like fire fighting services, removal of carcasses and arranging for the demolition of unsafe houses; organizing miscellaneous services like the running of public libraries, public gardens and dispensaries; and keeping vigilance against encroachments and unauthorized constructions. Many of these functions are performed in conjunction with the Urban Improvement Trust.

During the Emergency, the Jaipur Municipal Council has made a considerable impact on the urban development of Jaipur. The Council has been instrumental in clearing the city roads of hundreds of encroachments, initiating a massive cleanliness campaign, invigorating beautification drive and pinkwashing the walled city. It has also taken over the administration of New Colony, 'C' Scheme and Bani Park from the jurisdiction of the Urban Improvement Trust. The added responsibilities of the Council have made it a much more active authority than it ever was.

With the supersession of the popularly elected Council, the present Jaipur Municipal Council is headed by an Administrator who, in turn, is assisted by a Commissioner, an Executive Engineer, an Additional Commissioner and a Health Officer. The real centre of authority in the functioning of the Municipal Council is its Administrator, although the influence of the members of the dissolved popularly elected Municipal Council still remains, either directly or through higher channels of authority. In a democracy, such influences are imperative and not entirely undesirable.

DIFFERENTIATION SANS INTEGRATION

Operation of a multitude of agencies engaged in the development of the city creates serious problems of administrative co-ordination. Without any central co-ordinative mechanism, these problems are bound to become

increasingly acute. In scores of decisions concerning Jaipur's development, lack of inter-agency co-ordination has sometimes led to an accentuation of mutual distrust and unhelpful attitudes. A few references to this issue may be pertinent at this point.

Sometimes, Rajasthan State Electricity Board and Public Health Engineering Department are not involved in the preparatory stages of the development of new residential colonies and commercial areas; new markets are constructed without fully analyzing their possible utility for the shopkeepers and the consumers; in many areas slums dwellers have been permitted to retain their *katcha* houses without taking into consideration possible dysfunctional impact of this policy on city's planned growth; there is a general complaint of various developmental agencies charging exorbitant rates for their services; Rehabilitation Department still continue its jurisdiction over four large residential areas, while the Jaipur Municipal Council appears hesitant to take over the administration of these areas on the plea that sufficient development has not taken place in these localities. These are only a few of the indicators of the lack of inter-agency co-ordination.

The organizational map of Jaipur city makes it abundantly clear that a high level of structural differentiation has not been accompanied by a desirable level of integration. The result is a considerable overlapping of functions, which is evidenced in several agencies performing a common function—a situation that can be avoided through better co-ordination. The geographical fragmentation of urban administration—where the district authorities, Urban Improvement Trust and Jaipur Municipal Council are responsible for the same set of activities in their respective jurisdictions—also creates problems of co-ordination. Moreover, various agencies occasionally operate as islands of autonomy without caring much for their responsibility towards sister organizations which are engaged in lines of activities that are complimentary to their own.

To overcome these and other associated impediments, several co-ordinative instruments have been devised in bringing about increasing synchronization of functions among various agencies. A brief reference to these mechanisms may be made here.

THE CO-ORDINATIVE MECHANISMS

At the political level, the Minister for Local Self Government, in the recent past at least, has been quite active and effective. The experience highlights the fact that the Minister's intervention has made things work with a forceful speed. One would anticipate, therefore, that unless a central co-ordinating authority is set up for the urban development of Jaipur, dependence on the political level for this purpose is likely to perpetuate.

Nevertheless, it may be suggested that in order to synchronize urban policy at the political level, a Cabinet Sub-committee on Urban Development may be formed in Rajasthan. The committee should be headed by the Chief Minister and have among its other members all those Ministers who are heading departments involved in Jaipur's development. Besides, this Sub-committee should have as members all those non-official chairmen of autonomous organizations (engaged in urban development tasks) who enjoy a Cabinet rank. Such an organizational innovation is likely to enhance the status of urban developmental administration as also provide it with greater consistency and effectiveness.

It may also be appropriate to redesign and redesignate the State Department of Town Planning as the Department of Town Planning and Environmental Protection. A top level organizational change of this nature will help boost the movement of environmental protection and of pollution control in urban areas.

At the top administrative level, there functions a Co-ordination Committee consisting of Secretary of Town Planning and Local Self Government, Chairman of Urban Improvement Trust, Deputy Secretary Finance, Chief Town Planner, Secretary of Urban Improvement Trust, Chief Engineer of P.W.D. (B&R), Additional Chief Engineer of P.W.D. (B&R), Administrator of Jaipur Municipal Council, Chief Engineer of Public Health Engineering Department and Director of Local Bodies. This committee, though expected to meet regularly, suffers from the problem of inability of all these busy officials to meet at a mutually convenient time.

It has been observed that several co-ordination problems are presently being thrashed out at the level of Secretary of the Local Self Government Department. Here it may be pertinent to note that the Legislative Committee on State Undertakings, in one of its recent reports on Rajasthan Housing Board, has highlighted the efficacy of Government acting as the chief co-ordinative mechanism for the balanced urban growth in the State. The role of the Local Self Government Department is likely to increase in the near future, particularly because there do not seem to be emerging any rival co-ordination agency at the top.

Notably, the representative composition of Advisory Committee on Master Plan, of the Urban Improvement Trust and of Rajasthan Housing Board, also provides opportunities to top officials of various administrative agencies to have concerted planning for urban development as also to undertake a meaningful analysis of issues which concern them all. For instance, the representation of the Chief Town Planner and the Collector of Jaipur on almost all co-ordinating urban administrative agencies supports this premise. Such organizational efforts, buttressed by the functioning of numerous

inter-agency committees and other regular meetings of officials, still leave a chasm between the desirable and the achieved levels of institutional integration.

ORGANIZATIONAL ALTERNATIVES

To overcome the problems emerging from the paucity of integration in urban administration, one might consider a few possible organizational alternatives.¹

First, a two-tier government could be suggested for the city—the “central” level having jurisdiction over functions such as planning, water supply, sewage disposal, housing, land development, road construction and maintenance, slum clearance and parks maintenance, while the local level of government would look after the functions pertaining to local drainage, kindergarten and primary schools, small local parks and gardens, local public libraries, street lighting, vaccination and inoculation, and birth and death registration. The proposed eight planning districts in the city under the Master Plan could serve as the bases for the second tier of government. Such a “federal” pattern is likely to bring local government nearer to local community, yet it may not ensure an autonomous and efficient functioning of the second tier of the city government. Further, the inter-agency problems at the first tier may not be solved automatically.

The second organizational alternative could be to set up a greater number of special purpose authorities, each charged with some specific function. If more agencies on the pattern of the Improvement Trust and the Housing Board are created, there is likelihood of greater induction of “specialization” in urban development programmes. Here again, the problem of inter-agency co-ordination may not be fully solved. Rather, it could get accentuated.

The third organizational alternative for making the urban administrative system of Jaipur more integrated and effective is to set up a unified administrative authority for the administration of the city. Establishment of an agency of this type has been recommended in the Master Plan as well.

It appears advisable, therefore, to set up, for the integrated urban development of Jaipur, a high-powered multi-functional authority which would co-ordinate the activities of other agencies, besides directly involving itself in the implementation of a part of the Master Plan. This central agency should have authority over the entire urban area. It could facilitate rational environmental planning for the urbanizable as well as the peripheral areas.

The proposed Jaipur Planning and Development Authority should be broadly guided by an Advisory Committee consisting of 20 to 25 persons. The Authority should have representatives of the people, Chamber of Commerce,

important citizens groups, public institutions, and of non-Government organizations. The Authority itself should have about 15 members, with a non-official chairman as its head. Its membership should include Secretary for Local Self Government, Secretary for Housing, Finance Commissioner, Collector of Jaipur, two MLAs, two Municipal Councillors (or the Administrator of the Municipality), one representative each from Amber and Sanganer municipalities, and two or three experts on environmental planning and demography nominated by the Government. The Chief Town Planner and Architectural Adviser should act as the Authority's Member-Secretary. To make its organization more effective it would be appropriate to make the non-official chairman of the Authority its real executive and grant him a Cabinet status. He should be invited to the meetings of the Cabinet whenever matters regarding Jaipur's planning and development are discussed in the Cabinet.

For too long in the urban development of Jaipur, the function of planning has remained divorced from the 'development' function. Integrating them through an agency set up on the above model is likely to bridge the gap between the two essentially unseparable activities. Otherwise, the administrative system of Jaipur might perpetuate itself in an unending state of "prismatism."

Lastly but most importantly, it needs to be stressed and underscored that the success of development plans of a city would largely depend upon the active participation and involvement of its people in the implementation of various schemes. Whether it is a cleanliness campaign, a beautification drive, a tree plantation exercise, a slum clearance movement, a crusade against illiteracy, or an anti-pollution plan, it is the people who matter most. Without their unflinching support and co-operation, no administrative measure—however rational it may appear to be—cannot bear fruits. A Master Plan for urban growth needs to be buttressed by a Master Plan for people's action. This would require consistent and concerted efforts to arouse and organize civic consciousness among the people of Jaipur.

1. On this score, see Mohit Bhattacharya, *Management of Urban Government in India* (New Delhi: Utpal Book Store, 1976), pp. 144-151.

Index

- Academies, 90
- Administrative system, 120-130
 - autonomous organizations, 120-121
 - Central agencies, 121
 - Co-ordinative mechanisms, 127-129
 - differentiation, 126-127
 - district administration, 121
 - integration, 126-129
 - multitude of agencies, 120-121
 - organizational alternatives, 129-130
 - people's role, 130
- Albert, Prince, 2
- Amber
 - as capital of Jaipur, 1
 - under the Master Plan, 104, 114, 118
- Aravali hills, 1,3
- Archaeology and Museums Department, 121
- Art galleries, 90
- Arora, Ramesh K., 8
- Astronomical observatories, 1
- Ayurveda
 - All India Institute of, 72
 - Ayurveda Grantha Academy, 72
 - Dhanvantri Hospital, 69
 - Directorate of Ayurvedic and Unani Medicine, 64
 - Government Ayurveda College, 57, 69
- Beautification, 83-86, 120, 124, 126
 - chowpans, 84
 - drive, 83
 - trade centres, 84-85
 - Bhakra Nagal, 42
 - Bhattacharaya, Mohit, 130
 - Bhattacharya, Vidyadhar, 1,83
- Census, 9
- Chambal project, 42
- Chandrashekhar, C.S.,8
- Chief Town Planner and Architectural Adviser, 109, 121, 124
 - functions, 123
 - impact, 123-124
 - organization, 124
- Cinema halls, 88
- City Survey Project, 88, 93, 94
- City Transport Service, 121
- Clean City Society, 81
- Cleanliness campaign, 78-80
 - community consciousness, 81
 - Jaipur Municipal Council, 126
- Commercial activities
 - under Master Plan, 110
- Committee on Urban Waste, 81-82
- Community Service Zone, 5
- Co-ordination Committee, 128
- Cultural life, 87-91
 - festivals, 91
 - Ghumar, 91
 - Maharaja's School of Arts and Crafts, 57
 - melas*, 91

- Demography, 9-12
 - density of population, 11
 - growth of population, 9, 11
 - population projection, 11
 - wardwise population, 3-4, 12
- Delhi, 1, 3
- Desai, A.R., 25, 36
- District administration, 121
 - and noise pollution, 77
- Dutta, Rajendra, 70
- Education, 56-63
 - Bihar, 62
 - colleges, 57, 59-60
 - Department of, 120
 - female, 63
 - higher, 59-60
 - Jaipur State Primary Schools Act, 56
 - minority communities, 63
 - non-formal, 60-61
 - Orissa, 62
 - policy, 61
 - schools, 57-58, 61-62
 - scientific education, 62
 - Tamil Nadu, 62
 - teachers, 57-58
 - underprivileged communities, 63
 - vocational, 63
 - voluntary agencies, 56, 81
 - West Bengal, 62
- Employees' State Insurance Corporation, 64, 66
- Electricity supply, 42-47
 - city zones, 42
 - consumption pattern, 43
 - in *katcha* houses, 44
 - in princely Jaipur, 42
 - revenue obtained, 44
 - street lighting, 46
- Environmental protection, 74-82, 129
 - air pollution 74-76
 - Board for Prevention of Water Pollution, 77
 - land pollution, 77
 - noise pollution, 77
 - water pollution, 77
- Exhibition halls, 90-91
- Festivals, 91
- Forest Department, 121
- Gardens and parks, 92-97
 - city level, 92
 - management, 95-97
 - Master Plan, 97
 - walled city, 92
- Gaur, S. K., 36
- Ground Water Department, 120
- Gupta, S.K., 36
- Hahnemann, Samuel, 70
- Handicrafts, 5, 107
- HCM State Institute of Public Administration, 106
- Health Services, 64-73
 - Amar Jain Relief Society, 69
 - Ayurvedic system, 69
 - College of Nursing, 57
 - Directorate of Medical and Health Services, 64-65, 67, 73
 - disease pattern, 64
 - food adulteration, 73
 - government dispensaries, 66-67
 - health education, 73
 - Homeopathic system, 70
 - inoculation, 67
 - Jail Hospital, 64-66, 72
 - Leprosy Hospital, 65-66, 71-72
 - Master Plan, 73
 - maternity and child welfare centres, 67
 - medical services, 64
 - Military Hospital, 64-66

- Police Hospital, 64-66
- private agencies, 68-69
- psychiatric centre, 65-66, 71
- psychotherapy, 71
- Railway Hospital, 64-66
- Red Cross Society, 64, 67-68
- Santokaba Hospital, 64-65, 68
- Surajmal Bambaiwala Hospital, 69
- T.B. and Chest Hospital, 65-66
- Unani system, 70
- Yogic and Research Centre, 66
- Zanana Hospital, 65-66, 71
- Homeopathy
 - education, 72-73
 - Hahnemann Homeo Mandiram, 70
 - in *katchi basties*, 73
 - Rajasthan Board of Homeopathy, 70, 72
 - Rajasthan Homeopathic Medical College and Hospital, 70, 73
- Housing, 13-24
 - abadi* land, 21
 - bathroom facilities, 16
 - commercial, 5
 - co-operative sector, 21-22
 - floor space, 14
 - Ford Foundation Team on Urban Housing, 15
 - Gandhi Grih, 20, 23
 - Government offices, 110
 - Housing Department, 120
 - kitchen facilities, 16-17
 - latrine facilities, 17-18
 - low cost, 23-24
 - Master Plan, 111-112
 - new colonies, 18-19, 21
 - occupancy status, 14-15
 - policies, 23
 - private agencies, 35
 - priorities, 35
 - problems, 13
 - requirements, 23
 - residential localities, 5, 7, 10
 - rural housing, 24
 - Scheduled Castes and Scheduled Tribes, 22
 - Working women hostel, 24
- Immigration
 - Marwari businessmen, 10
 - Pak refugees, 10
 - rural areas, 23
- India, 9, 107
- Indian Tourism Development Corporation, 103, 106
- Indrapal, 76
- Industries
 - consumption of electricity, 43-44
 - industrialization, 25
 - industrial areas, 6, 117-118
 - Master Plan, 112, 117-118
 - pollution, 76-77
- Industries Department, 121
- Industrial Training Institute, 57
- Integrated development, 21, 118, 129-130
- Jaipur
 - administrative system, 120-130
 - balanced growth, 120, 126
 - beautification, 83-86
 - cultural life, 87-98
 - demography, 9-12
 - educational services, 56-63
 - electricity supply, 42-47
 - environmental protection, 74-82
 - health services, 64-73
 - housing, 13-24
 - Master Plan, 109-119
 - morphology, 1-8
 - recreation, 87-98
 - slums, 25-36
 - transportation, 48-55

- tourism, 99-108
- water supply, 37-41
- Jaipur Municipal Council, 121, 124, 126
 - beautification, 83, 126
 - cleanliness, 78-79, 126
 - health services, 64, 67-68
 - organization, 126
 - slum clearance, 26
 - street lighting, 46
- Jaipur Planning and Development Authority, 119, 129-130
- Jaisingh, Sawai, 1, 56, 78, 83, 100-101
- Kerala
 - housing in, 31
- Legislative Committee on State Undertakings, 128
- Libraries, 89-90
- Life Insurance Corporation, 80
- Literacy campaign, 61
- Local Self Government Department, 120, 128
- Madho Singh I, 78, 100
- Madho Singh II, 101
- Mahaveer Viklang Sahayata Samiti, 65
- Malviya Regional Engineering College, 57
- Master Plan, 121
 - Advisory Council for, 91, 124, 129
 - approach, 109-119
 - approval, 109
 - commercial activities, 110
 - commercial area development, 115-116
 - development of rural settlements, 13
 - government offices, 114-115
 - industrial areas, 117
 - Kanakpura Bindaika township, 114
 - land use plan, 112
 - of Vidyadhar Bhattacharya, 1-2
 - peripheral control belt, 118
 - planning principles, 109-111
 - planning districts, 113
 - specialized and wholesale markets, 117
 - tourism, 108
- Medical and Health Department, 120
- Military area, 96
- Mishra, R.K., 61
- Morphology, 1-7
- Paintings, 100
- Pillai, S. Devdas, 25, 36
- Police Department, 120
- Public Health Engineering Department, 120, 127
- Public Works Department, 120
- Rajasthan, 3, 10, 11, 89, 105, 114, 123
- Rajasthan Atomic Power Station, 42, 47
- Rajasthan Chamber of Commerce, 124
- Rajasthan Financial Corporation, 121
- Rajasthan Housing Board, 19-21
 - 23, 26, 125, 129
 - decision making, 122-123
 - functions, 121
 - impact, 122
 - organization, 123
- Rajasthan Road Transport Corporation, 121
- Rajasthan Small Industries Corporation, 121
- Rajasthan State Agriculture Marketing Board, 117, 121, 124

Rajasthan State Co-operative
Housing Financial Society Ltd.
22-23, 30-31, 121

Rajasthan State Electricity Board,
42, 70, 121, 127

Rajasthan State Road Transport
Corporation, 48-50

Ramsingh I, Sawai, 2, 56

Ramsingh II, Sawai, 101

Recreation, 87-98

cinema halls, 88

clubs and sports, 89

facilities, 92

for children, 92

kavi sammelan, 90

libraries 89-90

Mahamurkh Sammelan, 91

mushairas, 90

radio and television, 87

recommendations of Master
Plan, 111

zoo, 97-98

Rural housing schemes, 124

Sanganer, 109

handicrafts, 5

Sharma M.L., 8

Slums, 25-36, 120

civic amenities in, 33

clearance, 25-36

compulsory legislation, 32

community consciousness, 34

conditions, 25-26

definition, 25

Environment Improvement

Programme, 28-29

Facilities to Scheduled Castes

and Scheduled Tribes, 31

on government land, 26

illegal occupancy, 32

number, 25

occupancy status, 32

on private land, 33

rehabilitation of slum dwellers, 26

survey, 30

uncleanliness, 33

S. M. S. Medical College, 57, 66,

68, 71, 73

Department of Social and

Preventive Medicine, 73

Social welfare agencies, 24

Social Welfare Department, 31

State administration

and urban development,

120-121, 127-128

Theatres, 90

Ravindra Manch, 90

Tod, James, 1, 8

Tourism, 99-108

accommodation facilities, 102-104

airport facilities, 105

attractions, 99-101

development, 104-108

Department of Tourism, 102-104,

106, 108, 121

elephant ride, 107

entertainment programmes, 105,

106

Government of India's Study

Team on, 108

hotel facilities, 102, 105

publicity, 107

reception centres, 105

sightseeing transportation, 107

Tourist Golden Triangle, 99

tourist guides, 106

tourist police force, 105

tourist traffic, 105

transport services, 105

training, 106

under Master Plan, 110

Town Planning, 109-119

prastha layout, 2

- principles, 109
- Shilpa Shashtra*, 1
- walled city, 2
- Town Planning Department, 120
- Transportation, 48-55
 - City Transport Service, 48-50
 - facilities, 103-104
 - and housing facilities, 24
 - mixed traffic, 48
 - number of registered vehicles, 48
 - other means, 50-51
 - railways, 3, 10
 - tempo service, 50
 - traffic security, 51
 - under Master Plan, 51-53
- Transport Department, 120
- University of Rajasthan, 56-57, 59, 63, 70
 - colleges, 59-60
 - cultural programmes, 91
 - Institute of Correspondence Studies, 63
 - Post-graduate departments, 59
 - library, 89
 - recreational facilities in, 89
- Unnithan, T.K.N., 8
- Urban Improvement Trust,
 - 25-33, 124-126
 - functions, 125
 - impact, 125
 - organization, 125-126
 - slum clearance, 125
 - street lighting, 46
 - Urbanization, 25, 74
- Urban ceilings, 24
- Water supply, 37-41
 - Amanishah headworks, 37, 77
 - Banas river project, 40
 - checking wastage, 40
 - existing arrangements, 37
 - Gandhi Sagar dam, 42
 - impurity of water, 41
 - irregularity of supply, 40
 - Jawahar Sagar dam, 42
 - nineteenth century, 37
 - pipelines, 39
 - Public Health Engineering Department, 119
 - Ramgarh Bandh, 37, 39, 77
 - shortage of meters, 41
 - tubewells, 37-38, 40
 - water connections and public taps, 39-40
- Whittick, Arnold, 36
- Yogendra Singh, 8
- Zoo, 97-98, 121

ERRATA

PAGE NO.	LINE NO.	READ	IN PLACE OF
5	19	529	200
8	1	Jaipur	Jaipu
11	26	phenomenon	phenomnon
28	11	following	follwoing
58	18	attract	attaract
65	28	services	servicess
77	26	densely	densly
87	3	hubbub	hubub
97	22	densely	densly
104	38	sewerage	sewarage
105	12	Hostel	Hostle
127	13	continues	continue